Marek Poliks & Roberto Alonso Trillo

EXOCAPITALISM

economies with absolutely no limits

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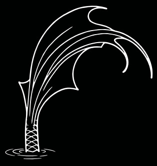

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“A masterpiece... Nick Land for adults.”

— Onty

“You will never look at Salesforce the same way... It is one thing to realize that one is a serf for a techno-feudalist master; it is another thing to realize that one is a vavasour to a piece of digital land that is no longer planar but scalar, dragged only in order to be lifted once again. There is no masterdom at the scale of capital: only an algorithm all unto itself.”

— Alessandro Sbordoni

“Exocapitalism offers an alternative to Nick Land that is desperately needed—not because it is more sober (it isn't), but because it is less horny. The sexy AI alien of technocapital is revealed to be nothing more than a Rule 34 drawing of slime mold, or perhaps a kind of yeast, that meek inheritor of the Earth leaving all of humanity behind.”

— New Models

“This is not an argument for a new phase of capitalism, but rather a cosmological, retroactive take on the continuity of capital as an inhuman algorithm modeled on finance and software rather than factory and labor, manifesting in the contemporary topology of the spongy and blob-like digital business formations—this is bound to be controversial, but it is worth contending with. So love it or hate it, *Exocapitalism* is original, enlightening and infuriating: a book to be reckoned with.”

— Tiziana Terranova

“From the chain of signifiers—platform extractivism, green deal, crypto, and techno-feudalism—there is no exit, but exo-; your cosmo-finance model for the precarious. Once capital had lost its fixed references, new speculative worlds opened up, each with their own logic. There may be infinite complexity, yet, in the current geo-political whirlwind it all comes down to a reduction of flows into a simple economic model, and Poliks & Trillo navigate this abstraction ladder in an elegant way. Revolving around software and data centers, exocapitalism is a germ which produces worlds.”

— Geert Lovink

“Not even a thing, capitalism is mutable; it is only its mutants.
It's whatever x-capitalism works right now. So let x = neoliberal / racial / industrial / platform / autocratic / financial / green / techno / bio / etc. as you prefer — even, now, on its way to the another yet-more-whacked variant, let x = X too. Concatenated, meshed without term or unity, capitalism is only beside itself: an exocapitalism, as Marek Poliks & Roberto Alonso Trillo succinctly call it.

Sure, human labor has been a pit-stop in this prolific adaptation but, as Poliks and Trillo contend, that's only a domestication of exocapitalism, handy for a little moment in its history—and of course for the self-regard of its benighted (and, honestly, now tired) critics. Detached from this stabilizing narcissism, Exocapitalism does us the immense favor of staying true to its anti-object: thematically promiscuous, scale agnostic, attentive to its *n*-tupled deleteriousness, Poliks and Trillo advance a latency theory of accumulation by which, as they put it, capitalism gets to be done on anything.

You won't get an easy out—you already have the dignity of human labor for that—but you will get to see some shapes of what mutability looks like when it's optimized for accumulation by ubiquitous volatilization.”

— Suhail Malik

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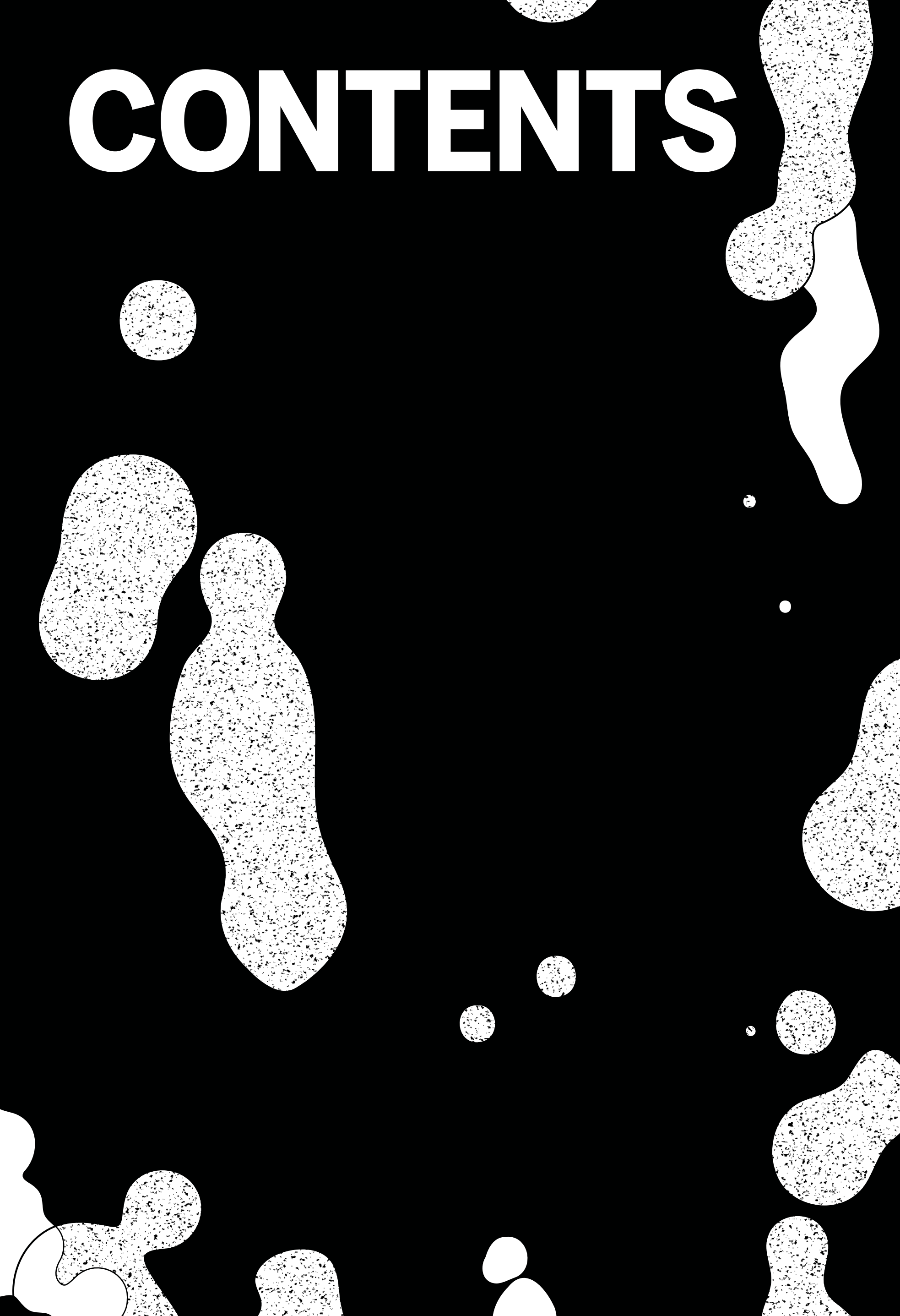

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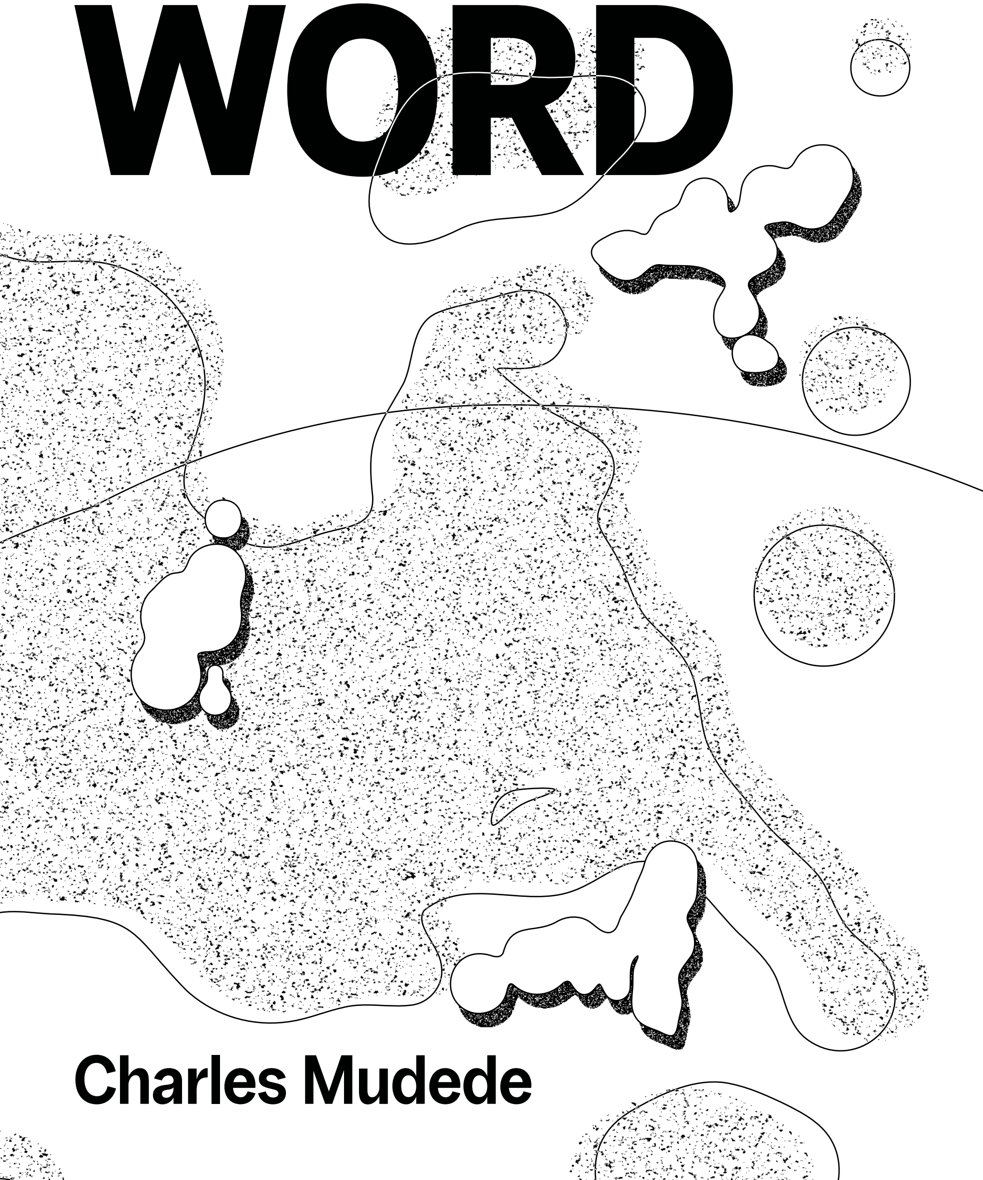


Charles Mudede

The Political Economy of Software

This book is a trip—and this would not be the case if its subject, capitalism, was not in itself and in every way, very trippy. What the authors of *Exocapitalism* attempt to describe is nothing less than the present state of a system that has evolved within a space that is delimited by the logic of value extraction. If, in the theory of General Relativity, “spacetime tells matter how to move [and] matter tells spacetime how to curve,” — to use the words of John Wheeler — then we can say something of the sort pertains to value and capitalism as well: the former tells the latter where to move, how to curve and so on. The two cannot be separated and they co-evolve in what can be pictured as a configuration space.

This space remains the same in all of its defining points as Newtonian space, however the form of the contents it holds changes continually. In short, the form the elements of capitalism assume may result in liberalism, or Keynesianism, or neo-conservatism, or, in the near future, the ICE Keynesianism established by the Big Beautiful Bill. In this book, its form, shaped by forces that appear to be aleatory, is exocapitalism, a configuration which in many ways is both very new and very old. The old part relates to capitalism as an economic system, and the new part to a reconfiguration and, as a consequence, reassertion of its key category, value. In Marxist political economy, this category is represented by the equation that exposes the source of profit, whose value form, surplus value, eluded classical political economy. In exocapitalism—the moment when the machine and value accumulation become almost (or appear to be) one—the worker is removed from this equation and what we are left with is capital in a state that, by itself, by its own lifting activities, believes that nothing more is required for its maintenance and expansion until the end of all time. This is the software economy.

Marxists would have seen this fantastic jump (or, to use the language of Poliks and Trillo, lifting) coming if it had taken seriously a theory that Tugan-Baranovsky presented in the closing years of the 19th century: “the [potential/possibility] of the self-expansion process [Verwertungsprozess] of capital.” Rudolf Hilferding called this “Marxism gone mad.” And though he was right in one respect (what mirrors Marxism and capitalism is, according to Baudrillard, production itself); he was wrong to see the jump/lift as a form of madness. It’s perfectly rational. No markets, consumers, no contracts – capitalists can do with just machines producing machines. What William Blake described with horror as “these dark Satanic Mills” has reached a state of perfection in today's software economy.

But it doesn’t end there. The status of value in exocapitalism, which draws primarily from early Deleuze and Guattari, with splashes here and there of Nick Land, is that it’s completely divorced from the conventional view of labor. “This is a weird way to think about labor,” write the authors, “admittedly, instead of labor producing value – e.g. assembling wood into a chair – we propose thinking about labor constructing volatility in the translation between capital exchanged for wood and capital received for chair.” Why? Because the value labor adds to a product is not in the form of ever-accelerating time (the key to the labor theory of value, which is socially necessary labor time) but actually in what might slow down its realization: friction. These interruptions result in volatility, the essence of Exocapitalism’s value theory.

Now this conception, as far as I can tell, is entirely new. Or, it’s related in some ways to a concept that, in its design, validates capital’s contribution to an economy, which is waiting. But the waiting described in Alfred Marshall’s Principles of Economics, was, for one, about adding moral value to a part of the system that seemed to do nothing: it didn’t lift boxes, turn screws, stack shelves, and what have you. What did capitalists do? They waited.

In exocapitalism, waiting has evolved into holding, which causes a kind of friction that generates value. This is the nut of this work. The “time (the hold), and the frictions and latencies through which time is accessed, is quite literally money.” And from this nut we get this conclusion: “Value-production within the hold phase is simply and directly a by-product of time, and the relationship between buy, hold, and sell are literally determined by prediction tools and applied Brownian motion (random action within a substrate).” Waiting becomes holding, holding results in the new source of value, which is volatility. Capitalism has never been and could never be a smooth criminal. It needs the hold, the friction, the instability to generate surplus value. An efficient market hypothesis is nothing more than the chattering that zombies make with their teeth.

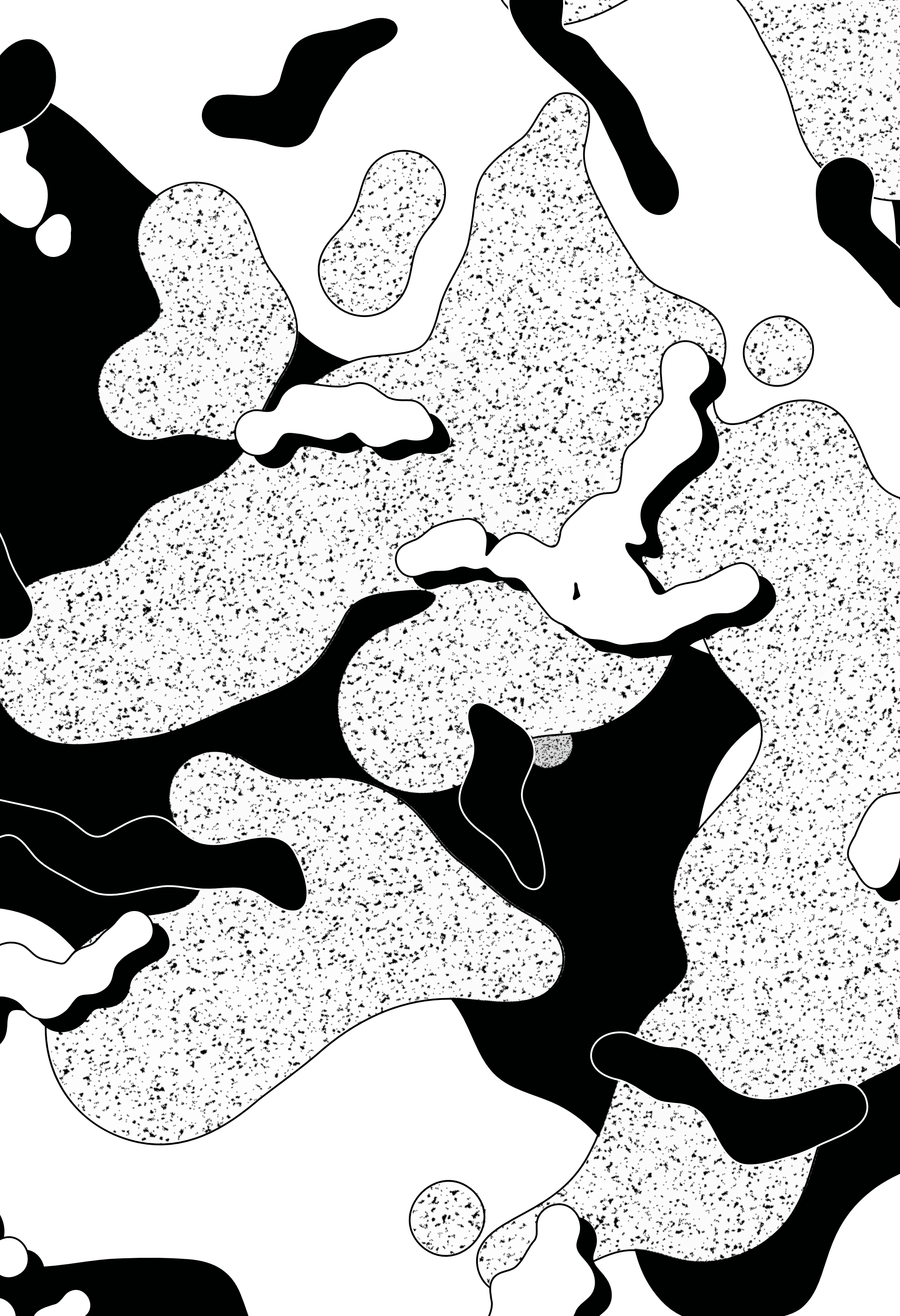
But there is still more (SPOILER ALERT): Poliks and Trillo end their work with no prescriptions. This has two important consequences. One, it means that, despite Nick Land's influence on this book's model of capitalism as it is today, liberation can't be identified with accelerationism, which, after all, has its deep roots in Marxism. The theorists of exocapitalism want, rightly, nothing to do with crises: the crisis of the state, the crisis of legitimacy, the crisis of the last crisis. In this respect, Poliks and Trillo break fundamentally not only with accelerationism but with the late theorists of the Frankfurt School as well, particularly Habermas. The earlier theorists, Adorno and Horkheimer were much more interested in reification, as developed in György Lukács's History of Class Consciousness, and this position is not at all foreign to the capitalism conceptualized by Poliks and Trillo. Reification and lifting are close rather than distant cousins. Indeed, at the heart of reification is the most famous line in the Communist Manifesto: "All that's solid melts into air." This is lifting.

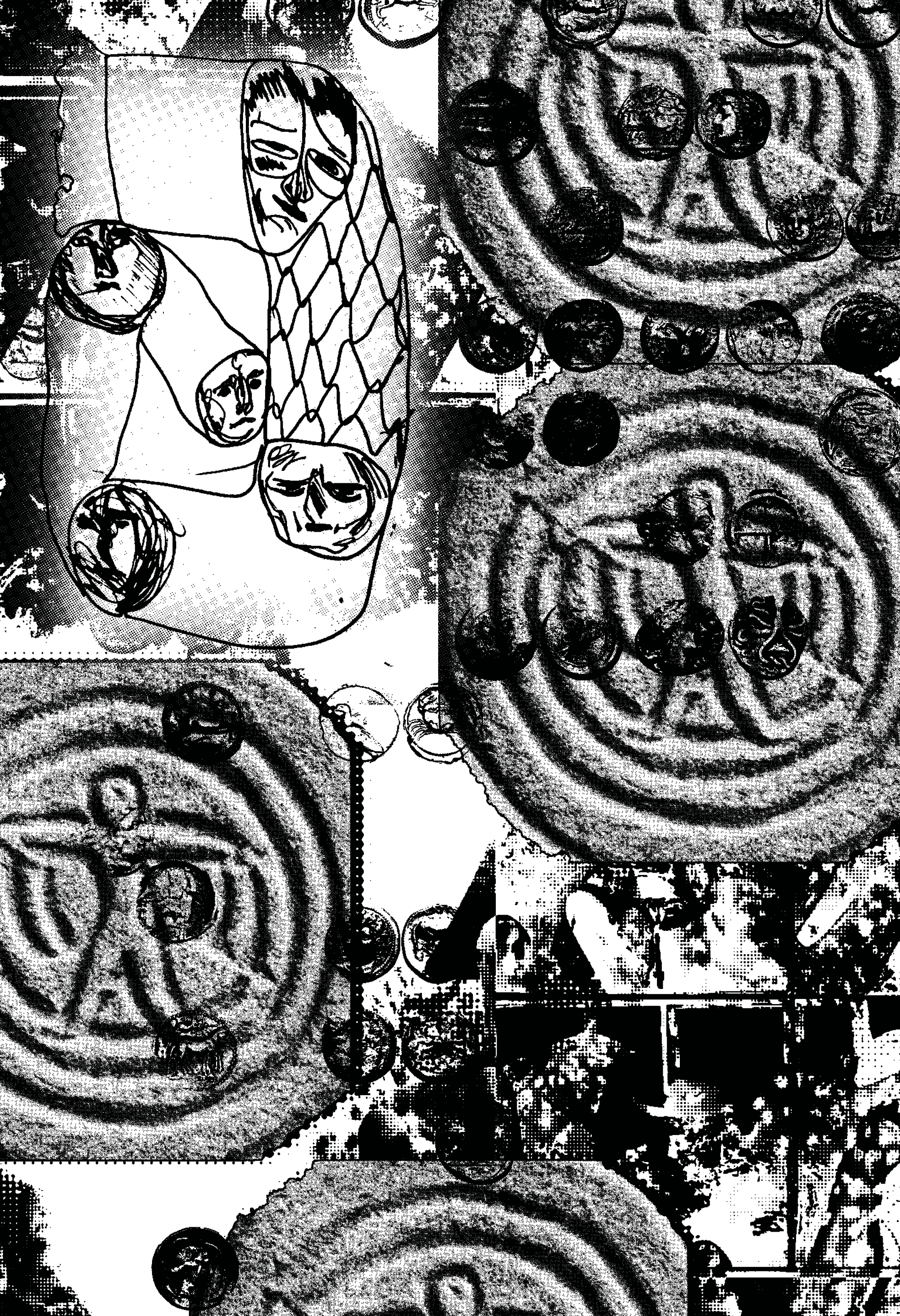
Exocapitalism is also a close cousin of Jean Baudrillard's "transeconomics." Winking to Baudelaire, he wrote in *La transparence du mal: essai sur les phénomènes extrèmes*: "Money is now the only genuine artificial satellite. A pure artifact, it enjoys a truly astral mobility; and it is instantaneously convertible. [It is] the orbit in which it rises and sets like some artificial sun..." But what about the workers? What about labor? What is to be said about this class in *Exocapitalism*? Nothing. And with good reason. There is nothing to say about labor in an analysis of capitalism that can consider itself at all rigorous. What one must wake up to is the fact that for a while labor has been, and, for the most part, still is, irrelevant. The wage is not even yours. To feel in ownership of it, is to accept the concept of distribution first formalized/fantasized by Adam Smith (though it has its roots in Locke's theory of property) and reasserted by David Ricardo: The wage is like capital and rent.

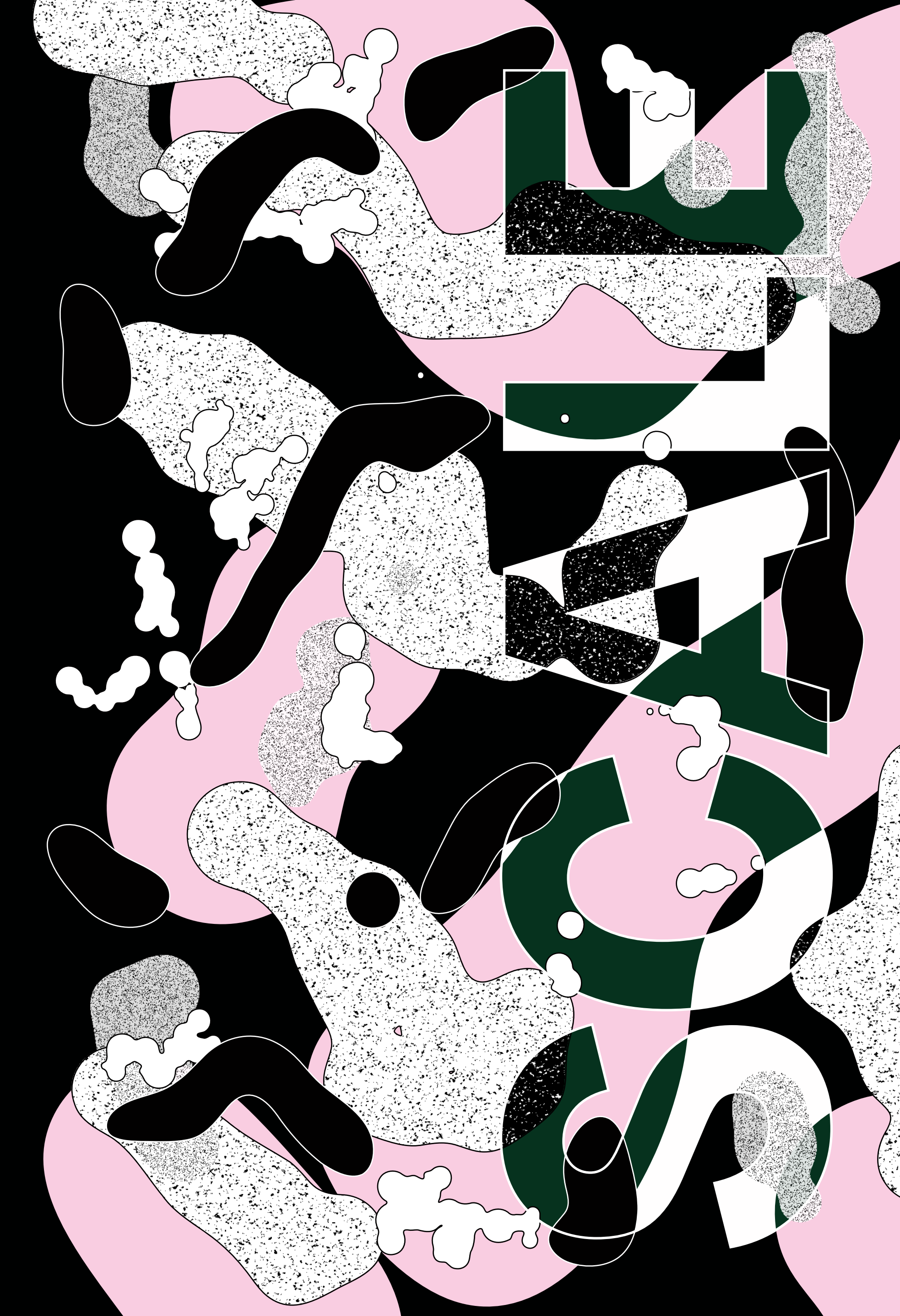
Each stream is claimed by revenue as a part of the national product. But only the mid-century Kozo school of Marxism, which is not taken seriously by orthodox Marxists, saw the flaw in the steps of this kind of thinking. Wages were never owned by the workers. Those who grabbed rent and profits with their grabbing hands always grabbed your wages because it was, in essence, their property. If this is understood, then you will see why social democracy as it is classically understood, and in some states practiced, was doomed to fail.

In exocapitalist economics, wages are only about lifting capital, about leaving what was once theorized as the base to the stars, and from there (the stars), to forever. With this understanding, the non-importance of labor can finally be seen as liberatory. There is no need to put the writing on the wall; just describe the space that informs daily experience in the third decade of the 21st century. Welcome to the software economy.

Charles Mudede, June 2025

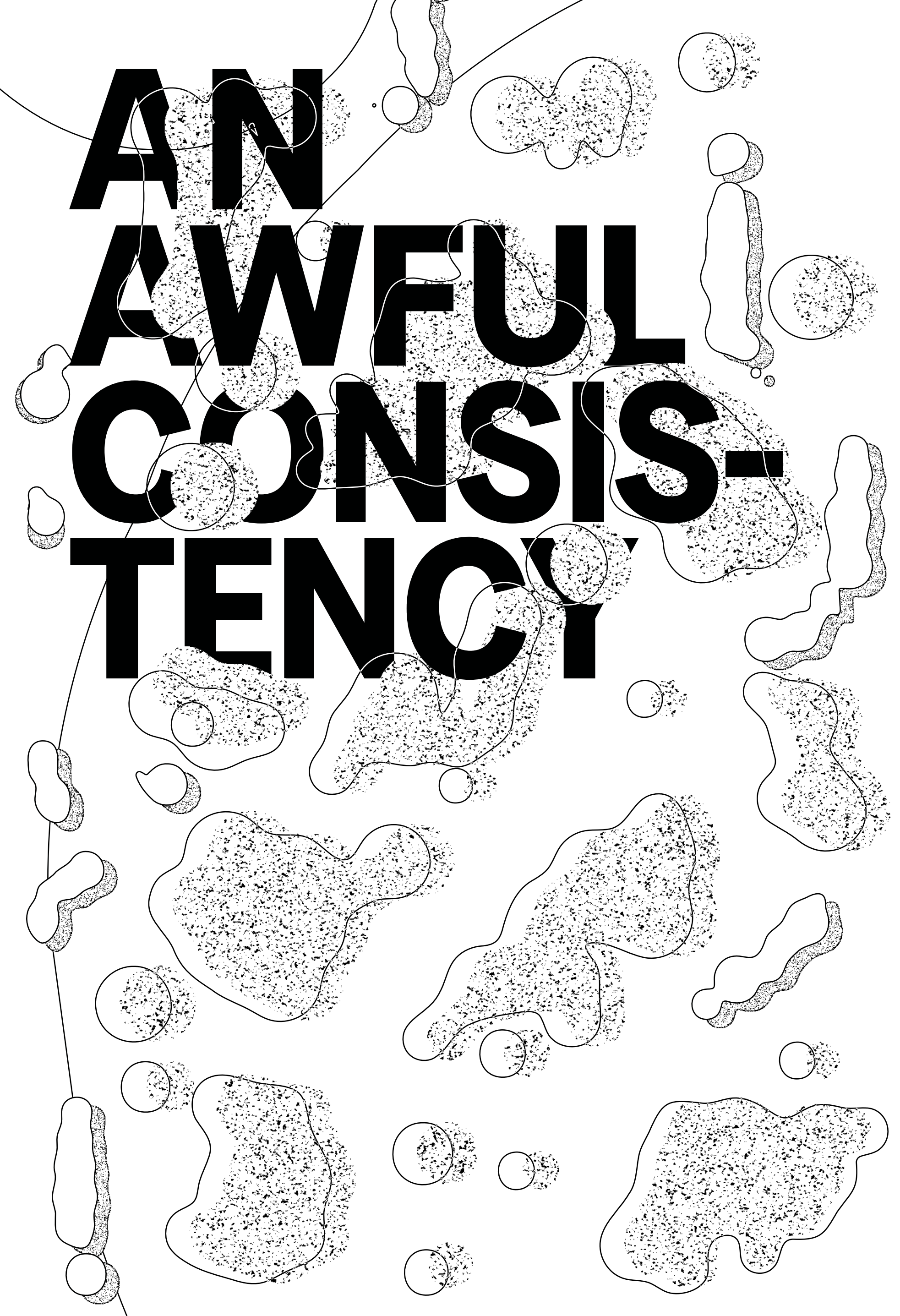





SCALE

THE

AN AWFUL CONSISTENCY



… beleaguers a tendentious critical apparatus.

It's so homogeneous:

> "Capitalism is a singular bad actor in unilateral control of the earth."
>
> "The state and technocapital work in concert to unleash perverse mechanisms of actionable control and surveillance upon a global population."
>
> "The virtuous human subject rallies forth a heroic multitude and by virtue of its sheer volume and through the unshakable dependency of all of the above on human sacrifice its labor power smashes through the predatory architecture in its way."

Cope cope cope!

The critical orthodoxy is slowing; it's tired, it's not especially good at the internet, it's probably never manned a Starbucks counter or an anonymous cubicle. Its younger adepts – though digitally native – are chronically underemployed, unavailable, drowning in the student debt (or student opportunity cost) required for entry into the critical apparatus. Few have any patience for the numbing slop-speak of the LinkedIn economy, the libertarian enclave of Forex and HFT and memecoins, the quarter-zip depravity of employment at the charnel houses of McKinsey or Deloitte or Accenture, the blazingly random mood-swings of venture capital that lubricate all of the above. This impatience is – in the parlance of the above – a **blocker**: it means that the critical apparatus underestimates the power of the software economy, struggles to articulate the morphological density of digitally-realized capitalism, comprehensively ignores the functional death of labor, and doesn't understand scale.

This isn't to say that we do – certainly we don't. It would be beyond suspect to pretend that we distinguish ourselves through our contempt for and boredom with the critical apparatus (already a house jacket, if not a mainstream prerequisite, for membership within that self-same club). But, hopefully, the following contains such a strikingly alternative cosmology for the contemporary state of affairs that it busts through the frozen-up discoursey-ness of it all.

At the center of our thesis is the idea that capitalism is not a big, monolithic, directional actor that moves the world around according to its ambitions. Instead, for us, capitalism is a very small, granular, fissile thing – a germ, an algorithm of autocorrection between two or more… *worlds*. The proliferation of so many different types of capitalism across the earth relate directly to the expressions of this germinal thought-pattern through boundless stacks of worlds upon worlds upon worlds.

Moreover, as goes the title, it is our contention that capitalism is not sociogenic, that it is not socially constructed, that it is not dependent on the human social field, that it does not work through or as ideology. The ***exo-*** of exocapitalism is not a semantic facelift, nor a new flow of capital, but rather it is the stark delineation of that capitalism which does not take the human as its substrate.

We call our theory a 'cosmology', less in the sense of making grand or sweeping claims about the universe, but rather in offering all that follows as a kind of sandbox through which to tear apart overdetermined concepts, to think through things that may and may not be capitalism (we spend a lot of time identifying things that look like capitalism, but might not be).

Our cosmology borrows foremost from Elena Esposito and Suhail Malik, whose work on financial ontology we hold in an almost sacred loose-grip. From Suhail Malik, we come to interpret a fundamental axiom at the core of capitalism as we understand it, that inefficiency (time-dilation, friction, interposition, mediation) is the same as value – a principle contrary to that enhoused in Marx and Weber and their heirs, for whom capitalism is the reckless scramble for time-efficiency at all costs.

This principle also flips the Marxian constructions of value and price on their head, from things that are *extracted* by a capitalist from a labor force, to things that can be *generated* out of nothing, independent from any material logics, simply by virtue of the interposition of latency between worlds. (We'll talk about the remapping of price and value throughout this book).

Our cosmology also gropes longingly at Nick Land, neither as a prophet nor as a critic, but as an apostate to human agency as it wrestles (unthinkingly!) with the great outdoors. For us, capitalism is very much a part of that great outdoors, that antipathetic shadowverse of big things, impossibly alien things, but things whose autonomy as such is not a dark curtain but rather an invitation for study and interpretation according to its own internal logics. We also borrow heavily from the early work of Deleuze and Guattari to whom Land is so indebted, specifically their first major contribution: *Anti-Oedipus*. The constellation of this unholy trinity makes that first, most compelling argument that capitalism is a thing or a process or a force or an algorithm all unto itself, a principle that sits uneasily within a critical apparatus obsessed with the retrospective effects of the impositions that capitalism has made upon the human race. We ground our analysis in the tradition of philosophical speculation made possible in part through this precedent.

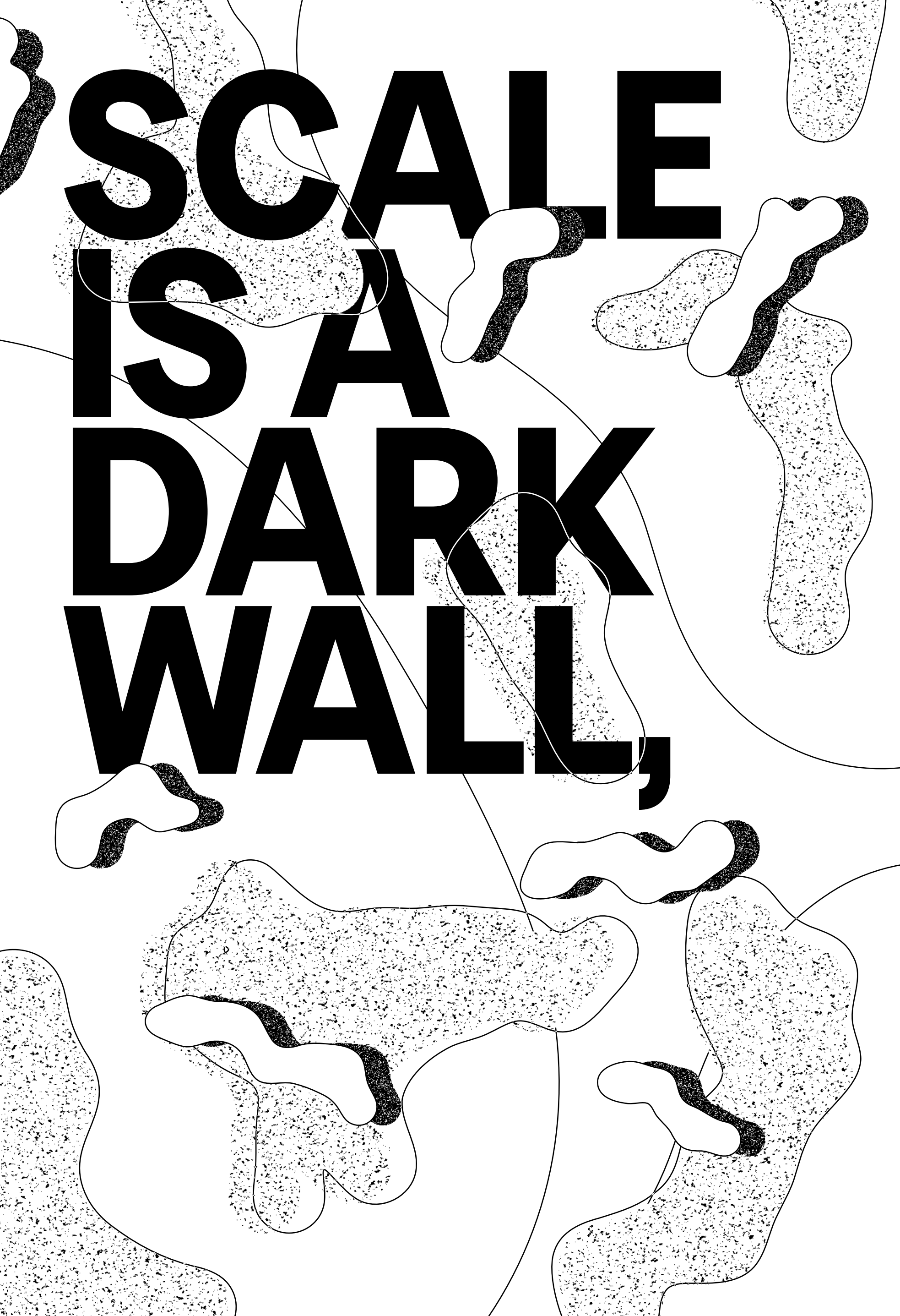
Our analysis thumbs itself, however, at the late Deleuze, at Foucault, at the Frankfurt School, at the paranoiacs and mind-eaters brandishing placards in the BlackRock-owned academic courtyard. For us, the state's capacity to control and regulate society on behalf of capitalism is grossly exaggerated in every possible respect.

While our cosmology further borrows from Silvia Federici (the primacy of the problem of social reproduction), from Frantz Fanon (the hard lines that separate humans upon the earth), and both Luciana Parisi and M. Beatrice Fazi (the interior dignity of computation), it is otherwise pretty lonely. (You could say that Reza Negarestani hangs out in the footnotes, an alienated uncle or sage who has been through all of this before).

But yes – the title is the point, it is indeed our proposition that capitalism, as exocapitalism, is infinite, unbound, untethered, independent, totally unbothered with the human condition, completely preoccupied with its own obsessions.

It is further our proposition that capitalism is not in itself our enemy – and here we break hardest from the Marxological slug race – it is at best an indifferent metaprocess, a cancer, a catastrophically poor replacement for social structuration. And the actual enemy? Well… it's us, right?

SCALE IS A DARK WALL,



… it hits us, blam:

> Scales that we, as humans, had taken for granted are suddenly front and center, blocking the path both forward and back. And when we look around, everything seems different, as if the borders between things have slipped out of focus. We may adjust our glasses and wipe our screens, but it isn't entirely clear whether it is the "human" or the "environment" that has changed scale.[1]

Scale hits us as a discontinuity, as a break or a rupture in the translatability of a thing or a relation outside of its originary domains, worlds, frames. The thing or the relation changes upon its interpolation outside of its context – sometimes drastically, sometimes it falls apart (depressurization or pressurization: explosion or collapse due to weight), sometimes it obtains new dimensions with which to flaunt its apperception as a body or a system or as a relationship at all (foom, we've noclipped, the physics engine is off, walls become paint, a vortex opens up below the map).

We've become so accustomed to thinking of our worlds as fluid, interconnected, frictionless embeddings[2] that when something new emerges, when something magnificently large breaks through the landscape, when something frustrates all translatability outside of its niche, we feel shocked.[3] Or, in reverse, we see ourselves as main characters within a cosmic psychodrama[4] and when we apply all of our weight, when we move with all of our intensity, when we concentrate all of our effort in collaboration to solving a problem, we humans are stunned by our failure to communicate our intention beyond our immediate state of affairs.

We, the authors, are really interested in breaks, in edges, in things that are not necessarily parts of other things, in flows that are resistant to influence, in friction. The cosmology in this book is made up "not of linear differentials […] but rather of radical discontinuities in the scalar spectrum,"[5] in which any attempted "minimization of the unwieldy global […] into the cozy, intimate scale of a village"[6] leads to buggy conclusions.

And, of course, vice-versa: irreducibility flows in all directions.

This weird introduction to a book about capitalism should help ease you into our cosmology – we situate capitalism as an entity that operates on different scales than we do – but it is also ignorable. This introduction talks about scale four ways: the *'at scale'* (the translation of a relation, e.g. through the application of magnitude), '*scalability*' (the flexibility of an original relation, its legibility as such at various scales), '*scalarity*' (the capacity of intra-action[7] for the components of that relation), and the *'scaling problem'* (when an inflexible relation falls apart *at scale*).

So, first, what does it mean to do something *at scale?*

In computer science, the scalability of an algorithm is the relationship between the **size of an input** and the **amount of resources required to execute that algorithm** against that input. A highly scalable routine gets more efficient at higher volumes, its resource requirements might scale logarithmically while input size scales linearly.

Think about an Amazon fulfillment center (or any assembly line, really). Building a giant fulfillment center is a crazy amount of structural overhead if you're just pushing through a small trickle of product. But as more cardboard pushes its way through the line, the aggregated organ structure of human and machine bodies start to glom together into a type of computer that very literally executes computational tasks (hierarchical sorting and binning algorithms) that increase in efficiency as volume increases.

On the other hand, **unscalability** in these terms points to situations where complexity and resource requirements ramp up together.

Inputs that involve networks, specifically those networks where the respective position of nodes via-a-vis all other nodes governs the dynamics of the network, are classically unscalable — for example, the social dynamics of a large group of humans.[8] The more humans and the more dignity afforded to the details of their respective dynamics to the whole group, the greater the complexity of the web, the more difficult it is to manage.

Since we're here to talk about capitalism, we should also introduce scale in economic terms. In business, scalability often correlates to the relative fixity of a cost structure.

Creating a physical product or conducting a physical service often involves incurring some fixed costs: the cost of a laborer (against a local minimum wage), the cost of a scarce physical component (diminishing returns against bulk pricing), or the cost of supplying a physical service environment (the cost of building and maintaining a hotel room). These costs do not necessarily decrease as volume increases; there exist definitive horizons to how low those costs can get against the margins through which the goods are ultimately delivered.

Physical commodity businesses tend to struggle with scale for this very reason; those costs add up, those profit margins only get so high. On the other side of the spectrum, software businesses enjoy extremely low marginal costs. The relative cost to provide software to each additional user typically decreases over time, often limiting to near zero at certain scales. When your price floor is zero, price becomes fiction, price becomes generative instead of determined, price becomes an input and not an output, price becomes world-making, you can really get wacky with price. Capitalism **hates** fixed costs and it **loves** getting wacky with price – we discuss this in detail throughout the book. Therefore, it should come as no surprise that **capitalism loves software**.

Scale is ultimately a way of thinking about magnitude and change. How much, or in what way, do things change under conditions of greater volume, greater velocity, greater weight? The less linear the correlation between magnitude and change, the more impact that the magnitude of the input has over the aggregate system as a considered object. This is true of both highly efficient and highly inefficient systems — in either case, the aggregate system changes its form at different scales as the relationship between input and resource alters. In some situations, there exists step-function limits to the scale of a system before it becomes a different kind of system altogether.

Think about a car. As a car increases in size, so does the weight of its chassis and frame, the tension on its joints, the size of its engine, its thirst for fuel. At a certain point, it ceases to be a car, and then ceases to be a practical vehicle entirely. In this mechanical sense, cars don’t scale; cars are not flexible relations.

On the other hand, think about a software environment that returns information about the local weather in response to an API query. As its throughput requirements change, so does its form. It might start as a humble, locally-hosted Flask server: a few lines of code in Python that allows your computer to be talked to by the world.

As it gets more and more requests, it needs to change its shape – and it can: it morphs into a containerized application that allows a bunch of computers to be talked to in the same way, and then it megamorphs into a dynamic orchestration system for the delivery of those software containers throughout the entire world.

As things change their form, they can become more or less recognizable.[9] As a social organization scales up, its relationship to its constituents changes from an interlaced network of individuals to a varyingly strict hierarchical stack of intermediary structures. "[I]ndividualism plays a more modest role"[10] as tiers of anonymous representation coagulate that individual layer into microsocial niche, then mesosocial position, then macrosocial ideology, stratifying the contents of each level into formal operations.[11]

Things tend to contain other things (relations contain other relations) that inhabit varyingly different scales. A society contains bodies which contain organs which contain cells which play host to subcellular organic structures, proteins, atoms, quarks, etc...

At first glance, it's easy to make the mistake of plotting a graph where the 'bigger' the thing is, the more agency it has, the more capabilities it has with respect to any of its smaller-scale components. A society can move a body, can steal an organ, can penetrate your cells, etc... the idle peripheries of a massive ocean's activity have monumental impacts on a shoreline marine ecosystem, let alone an individual tidepool's self-contained little world – **the bigger thing always *seems* comprehensively more powerful than the sum of its parts.**

But this isn't entirely true. As we've recently learned, a virus, simply by virtue of its mechanical construction, can devastate a society. A protein with some aberrant characteristics can fundamentally alter the trajectory of a body's development. A particular chemical configuration can seed a crystalline structure that can lead to a resource to which all of known life is contingent. This counternarrative can feel super destabilizing – how can something so small, operating with such apparent randomness, tear apart such big, detailed, thick, heavy, stuff?[12]

And, of course, it's then easy to overcorrect and fall into the trap of assuming that all of those constitutive things and relations share identical qualities, equal purchase, covalent determinative capabilities. The world dissolves into the stochastic play of infinite Butterfly Effects, where the coherence of a hyperchaotic universe is unravelable by any single thing, any single moment. Things receive their thingness only in the last moment, only at the instant at which indistinct flows and intensities collide, erupting into presence only immediately before disassembling into formlessness. The words ‘affordance’ and ‘actant’ make their first ungainly appearances, generalizable situations fission into particularities, it becomes very difficult to think about or talk about anything at all.

So instead, let’s assume that a general cosmological field of relations is not even, that all things are not in fact equal, that the ways components interact are mediated by the scalarity of their assemblage, by the topology of their assemblage’s ‘constitutive discontinuities.’ The fungus growing between our toes has little to no impact on the sun. A rock sitting inside a desert canyon cannot, by virtue of its singular and particular rockiness, destabilize the integrity of a nitrogen atom 200 yards away. We, the authors, will likely have almost zero impact on the indefatigable march of climate change. (If you’ve also been awash in posthumanist discourse for the past 20 years, you might understand how provocative it feels to write those basic declarations). Scale exists, things happen at different scales, among different scales, through different scales.

Inter-scalar encounters can be humiliating (e.g. with respect to agency), horrifying[13] (in a certain Copernican or Lovecraftian sense), or enthralling[14] (e.g. with respect to one’s adjusting self-perception in the face of something truly huge). Zachary Horton nails this:

> Our encounters with other scales may be dangerous but also open up the possibility of our being remade at other scales. We believe we construct scale, but “our” scalar mediation confronts us with entities as terrifying and wondrous as supernovas and nuclear fission, sea-level rise and computer viruses, galactic spirals and quantum uncertainty. New forms of subjectivity are continually produced by these trans-scalar encounters. […] The trans-scalar encounter is an encounter with difference and can therefore be either generative of further differentiation or a form of colonial capture, the imprinting of the dynamics of a socially engineered human scale onto another.[15]

We define what we call the **scalarity** of a system (or of a network, or of a thing) as the contingency of its underlying states of affairs with respect to its whole, the softness of its discontinuities, its plasticity as a totality (the diffusion of the totality's total-ness within itself), the distance or the flex applied to those definitional terms like necessity or sufficiency, the breadth of a structure as opposed to its arborescence or verticality, the expressways and frictions it makes for inter-scalar agency.

A super hierarchical, totalitarian, autocracy is not very scalar (hard discontinuities, brutal incapacities, so much friction).

A closed terrarium might be pretty scalar (contained, proximal, humid).

The 'planet' ... well, it can be either. Planetarity defined by Sylvia Wynter as "Western civilization's globally and territorially incorporating planetary imperializing world system"[16] imposes hard discontinuities between the "uniquely secular liberal monohumanist conception of the human" and "[a]ll the peoples of the world."[17] This kind of planetarity (one could call it 'globalism') is not very scalar – there's a universalized, platonic world which is immutable, unchangeable, determined by very few and imposed upon very many.

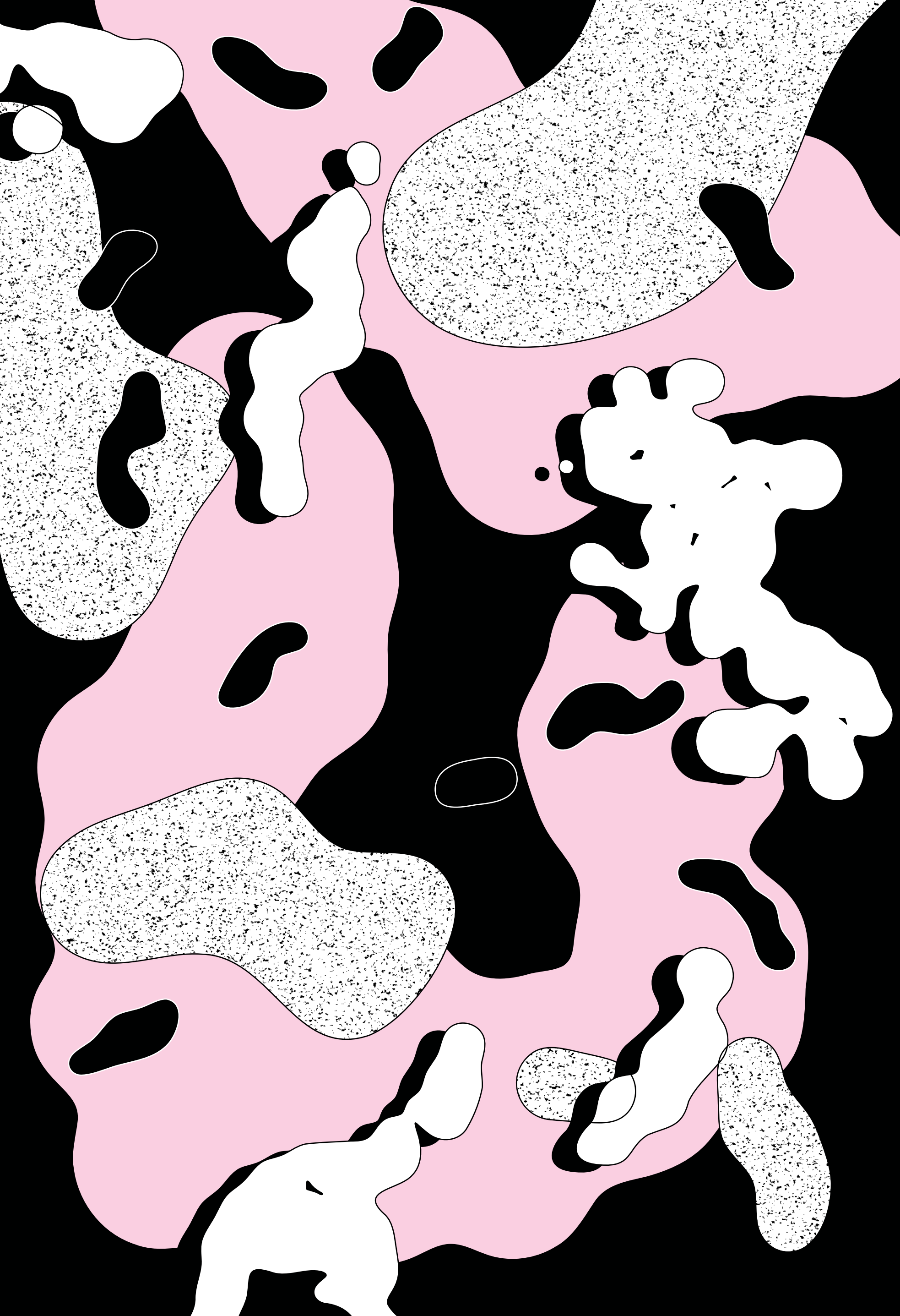
On the other hand, the 'planetary scale' as described by Patricia Reed (in asynchronous dialogue with Wynter) is a truly multi-scalar phenomenon: the planetary is something as present in a grain of sand as it is in a decentered human as it is in a continent.[18] For Reed, the planetary scale is not a fixed register, not a single threshold, not an isolated discontinuity, but rather a massive supernetwork of agential highways, tunnels, routes, different means and intensities of connection between forces of all different kinds, temporalities, and associations. In Reed's sense, planetarity is awesomely scalar.

Capitalism – or rather, what we stubbornly refer to as 'exo-capitalism' (the germ of capitalism) – is not very scalar. (We'll explain later).

In early 2024, we, the authors, gave a talk to *Foreign Objekt* where we incubated the concepts for this book.[19] We closed the lecture by gesturing at **scaling problems**, at the almost intolerable tensions we feel as humans experiencing so many simultaneous 'trans-scalar' encounters: the size and distribution of our population as it grapples with resource and logistics thresholds, the absolutely ancient entrenchment of geopolitical and colonial violence, the impossibly long half-lives of radioactive materials, the inbound freight train of climate collapse, the incapacitation brought so quickly to us by COVID-19, etc... [20] As Horton points out, every exchange across the trans-scalar veil is both a danger and an opportunity: truly, for us, there is both danger and opportunity at the moment for the 'human' (whatever that is!) to permute itself in a major way, to the point of being unrecognizable,[21] in order to adjust to the demands of scale. But, that's not really what this book is about.

Instead, this book is all about our trans-scalar encounter with capitalism.

FOLD



TEN YEARS AGO

... a user named SpikeTheCookie posted an absolute banger on r/salesforce:

> ***What is Salesforce, really?*** I'm looking for a really good, effective way to describe Salesforce beyond, yeah, it's a CRM, here are the features, blah, blah, blah explanation. This just sort of makes your eyes roll back in your head. ;-) What do you say that stops people cold, and they suddenly get it, they get the power and beautify [sic] of it, or the coolness of it. Is it too much to ask to go to a virtual cocktail party and tell people what you do, and have them say, "Oh, so you're like a spy! Tell me more..." ;-)

Honestly, it's a good question. What is Salesforce? If you haven't heard of it, you might be surprised at how thoroughly encoded **you** are into Salesforce, little bits of **your stuff** splattered across an almost uncountable number of half-implemented, dusty instances (who you are, where you live, what you do, what you've bought, when you bought it, what you did with it).

Salesforce, abbreviated SFDC for 'Salesforce Dot Com,' eludes definitional tightness. It's goopy; it's sticky. SpikeTheCookie initially calls Salesforce a 'CRM' (a customer resource management tool),[22] but its capacities as such are limited by design. In reality, a company wouldn't just use Salesforce alone for customer resource management, but might instead build their *actual* 'customer resource management' solutions *on top* of SFDC, mobilizing another suite of third-party tools (e.g. Gainsight, Outreach) that interface with SFDC for necessary CRM functions like account-based task management or outbound communication. This incompleteness, the inability of SFDC to **alone** serve a categorical function, is very much the point.

So, if Salesforce is not entirely a CRM, but instead a kind of tool in a toolkit you might use to make a CRM, we might as well zoom all the way outward and use the broadest possible generic terminology for software and call SFDC a 'platform.'

But the concept of the ‘platform’ is so swollen with scope creep – a platform could just mean a web service that hosts activity, or it could mean a development environment with which new workflows or software objects are architected and deployed, or it could be generalized into a medium through which through-going information receives some degree of translation or implantation. ‘Platform’ becomes a way of talking about things that connect other things, or as Nick Srnicek puts it, “digital infrastructures that enable two or more groups to interact [; ...] intermediaries that bring together different users: customers, advertisers, service providers, producers, suppliers, and even physical objects.”[23] That definition applies to the entire internet; that definition applies very literally to almost the entire contemporary software development world.

And is that even really what Salesforce is? Is Salesforce really **about** connecting a user base together, or allowing cross-functional teams within a business to work together, or creating some kind of plane of communication between internal objects and people and things?

Not really! Salesforce is closer to accounting software than it is to Decentraland,[24] it’s closer to Microsoft Excel than it is to Steam or to the Unreal Engine.[25]

Regardless, given the ambivalence of the definition it might be easier to define a platform negatively: a platform is **not** a one-stop-shop, **nor** a terminal node within a series, **nor** is it necessarily just a social world-space[26] within which things happen. A platform is **not enough of anything** on its own terms. You could instead think of a platform as a type of incompleteness,[27] a kind of loose interstitiality, an expectation, as something that requires someone else[28] to do something in order for it to fully render as a platform.

A platform is a vibe (longing).

In the case of SFDC, a platform is a nested bundle of software applications that behave in incomplete, platform-like ways (hungry for missed connections).

Further, SFDC is both one and many platforms. SFDC is huge and broad and fungal and gray in its samelike, mazelike sprawl. It consists of at least 15 ‘clouds,’ hosted service objects that hang somewhere between databases, analytics tools, communications tools, workflow management tools, even vaccine supply chain management tools. Each of these ‘clouds’ approaches what one might call a ‘solution,’ another woozy industry euphemism somewhat interchangeable with ‘offering’ or ‘service’ that inscribes a degree of specific utility for a specific array of purposes.

For example, Salesforce’s Experience Cloud allows a business to “[b]uild customer journeys on a powerful digital experience platform,”[29] an array of resources inclusive to building a digital store (integrate with Shopify[30] or Magento or Salesforce’s own Commerce Cloud), assembling together a helpdesk or an order support chatbot (integrating with Zendesk or Freshdesk or Intercom), or rigging up a “complete channel[31] management solution”[32] (for example, by integrating with Channeltivity, ChannelAdvisor, Impartner, Zift, or Salesforce’s own native PRM — partner resource management — solution).

There is a kind of hyperflexion here, where the thing we’re trying to define is so subordinated to not just relationality (a subordination to other things), but to relationalism (a subordination to the supple potentiality of relation) that it approaches a kind of true Deleuzian becoming.[33] It’s incredibly gushy stuff, it’s porous and liquid, it twirls over itself and threads into braids.

But we can go deeper: this hyperflexion is powerfully and infinitely recursive. Salesforce does, quite literally, contain itself multiply. It folds and torques itself into extraordinarily compact dimensions.

SFDC, counted among the Borgesian maze of **things that it is**, is also an application marketplace.

For payment processing, for example, one can turn to the ‘Stripe for Salesforce Platform’ no-code applet available within the SFDC AppExchange.[34] Stripe itself uses Salesforce[35] for its own Customer Resource Management tooling. Stripe processes payments[36] for Salesforce’s ontologically soft Digital 360 platform.

Twist.[37]

For contract signature and review, sample away from the menu at SFDC’s Customer 360: DocuSign Gen for Salesforce Billing or DocuSign Gen for Salesforce CPQ Plus or DocuSign CLM for Salesforce Field Service.[38] Partnership gives way to co-constitution; SFDC and Docusign commingle their “joint customers”[39] into a pool, Salesforce itself uses

Docusign[40] for its own internal document management.

Each of these reciprocal relations creates a new fractal surface: vendor + customer and customer + vendor, both compounded by their mutual integrability into the stack of a third party.

This relational circuitry goes all the way into the infrastructural level. SFDC does not really own its own servers.[41] It instead leverages another complex object that behaves in platform-like ways: the dreadnought that is Amazon Web Services (AWS). AWS mediates and rents access to servers, servers distributed within data centers, data centers that AWS is as likely to own as it is to lease.[42]

Salesforce's partnership with AWS reads like another cryptogram of partial puzzle-piecing and marketing language and recursive revenue flows:

Salesforce moves to provide first-party support for Amazon Bedrock (available through the 'Einstein Trust Layer,' a privileged overlay of Salesforce's application marketplace with respect to AI).[43] Salesforce Data Cloud moves to provide first-party management tooling for the dizzying abundance of AWS storage and provenance toolchains. In turn, AWS provides first-party support for Salesforce tools on its own AWS Marketplace, and deeper integrations with SFDC subcomponents like Tableau or Mulesoft (acquisitions made by SFDC for data visualization and integration management, respectively).[44]

The deeper the crease of the fold or the deeper the reciprocal mutual embedding (e.g. that between SFDC and Tableau), the greater the tendency for two nodes to collapse or absorb into one node. Mergers and acquisitions happen constantly, a wet market where hulking translucent beasts swap organs with each other for liquidity, or where freestanding, inchoate bodies are pulled in into endosymbiotic[45] relations. Blobs accrete to titanic scales, at which point they either bud off with parthenogenetic thrust or become so dotted with advanced cancers that they cease to be recognizable as single blobs at all. Others just pop into puffs of spores.

Competition within this nested, partnered landscape – where organs are freely shared or exchanged between blobby bodies – is almost always **partial** (especially at scale).

Does Zendesk compete with Salesforce? Yes, but incompletely (more directly with Salesforce's Service Cloud). Another behemoth, Hubspot, also incompletely competes with Salesforce's Marketing

Cloud and Sales Cloud. Both Zendesk and Hubspot boast first-party integrations with Salesforce, and both Zendesk and Hubspot also compete with each other, also incompletely.[46]

Competition within this space is always incomplete due to the diffuse character of the objects in play and to their structural incompletenesses as platforms. It's hard to even situate this organ market as competitive, it's a free-for-all of limitless organs. These translucent hulks simply reach through each other. Sometimes they get stuck and merge.

The 21st century acquisition has less to do with the construction of monopolies by saturating an addressable market, and more to do with a **drive toward dedifferentiation**. Nick Srnicek calls the endpoint of this drive the "convergence thesis: the tendency for different platform companies to become increasingly similar as they encroach upon the same market and data areas."[47] But while this convergence is interesting and noteworthy, it is the differential convergence that commands further attention — the almost universal dedifferentiation of the platform economy through scope creep, M&A, private equity playbooks, incomplete competition, and brand ambiguity. While Srnicek is correct that corporations tend to resemble each other at scale, they also tend to resemble... well... everything else?

Srnicek's perspective on competition and M&A departs from ours a bit. In his more recent work, and in the consensus of many of his contemporaries,[48] he seems to suggest that the platform economy had died,[49] or at least it has ossified into consolidated megascale multinational corporations (MNCs) with monopolistic characteristics and dramatic organizational shifts toward centralization. This is the *de facto* leftist orientation against so-called 'big tech,'[50] in which a celebritized executive class is understood to have directed, univocal control over both the generalized marketplace and the generalized media through which social bodies are created and regulated.

We're not sure. This perspective might overestimate the infrastructural integrity of these organizations and the clear univocity of their downstream impact. Despite the superficial characteristics, there exist such rich and chaotic interiorities to spaces like Alphabet that attributing concepts like hegemony or monopoly to these organizations feels incorrect. Certainly these companies own "the infrastructures of society,"[51] but as each company lays claim to the world, the ownership of a world by a world, a world bloated with autonomous vestigial organs, a world pastiched from defined and discrete subworlds, a world that bears world-scale complexity, feels tautological. As every engineer knows – software, mechanical, architectural – every joint is also a brittleness.

But sure, Amazon is obviously a hegemonic object in online consumer retail (or, rather, meta-retail).[52] In September 2023, the Federal Trade Commission filed an (ongoing, but heavily amended) antitrust lawsuit against Amazon, accusing the company of illegally maintaining a monopoly in online retail.[53] As Amazon approaches monopolistic[54] gigantism, its girth dilutes its proposition as a singular object.[55] While the Amazon we know exists as a logistics and fulfillment company, its core business is massively diffracted:

… not only does it contain Amazon Marketplace (which is fundamentally a software[56] business unit), but also Amazon Prime (licensing and content hosting), Amazon Advertising, a fintech division (Amazon Pay and Amazon Catalytic Capital), a pharmacy (PillPack from Amazon Pharmacy), a full consumer electronics division (Lab126), physical stores, and – crucial to our discussion here – Amazon Web Services (the hosting platform for SFDC).

AWS itself can feel like a monopoly; it has **monopoly vibes**. While it is certainly the leader in the 'rent-seeking on cloud compute' business, it still controls a minority of the market.[57] And, meaningfully, its competitors are similarly enormous: Microsoft's Azure platform, Google's GCP, Oracle's Oracle Cloud Platform (all gooey side projects, like AWS, of other big things). Again the incompleteness of this competitive[58] field rises to the surface — Azure is perhaps the most like-for-like competitor in terms of features and target market, but the parent organizations in play are starkly different.

AWS has a ton of things inside of it: services, functions, operational capacities, tools. Using AWS (deploying software on AWS) is, much like Salesforce, a combinatorial exercise wherein a user hen-picks from a mind-boggling lattice of modules, arranging them into a flow.

Just need compute? Try AWS EC2, Lambda, or Elastic Beanstalk. If you need storage, there's AWS S3, EBS, Glacier, or the RDS, DynamoDB, or Redshift. Devtools? AWS CodeCommit, CodeBuild, or CodePipeline, Integration? SQS or SNS. ML? SageMaker, GreenGrass, Bedrock, DeepLens, or Comprehend. Analytics? Kinesis, Glue, or QuickSight. Business applications? Amazon Connect, Pinpoint, Workspaces, Chime, WorkDocs.

Like Salesforce, AWS's product is a sprawling[59] and dedifferentiated splat of slippery nodules or cysts, from which entire product and engineering departments spin agile epics around flowcharting into spidery, Flusserian 'technical images.'[60]

AWS and Amazon, by virtue of their platformlikeness, fundamentally differ from traditionally-conceived monopolies like Standard Oil or U.S. Steel. Not only do these platform monopolies lack a kind of monolithic rigidity by virtue of their expansive stacks, they also seem to overlap across each other, they sit in all kinds of superpositions across a massively dimensional market ecology.

QUICK RECAP

… after an initial look at SFDC and AWS,

we stretched the concept of the platform from a discrete technical object into an orientation, specifically an orientation toward:

dedifferentiation
The elasticity and ambiguity of a brand proposition as it relates to an array of capacities (SFDC as CRM, as marketing tool, as supply chain management tool, as workflow tool).

modularity
An array of features as a nested hierarchy of components (AWS EC2 as a subdomain of AWS, with its own array of subcomponents both inside and outside of its subdomain as available resources with which to pattern together a solution).

integrability
A dependency on additional third-party components in order to deliver the complete value of the solution (a web retail space assembled together from SFDC Commerce Cloud, Stripe, a 3PL provider, an ABO tool, and Amazon).

incompleteness
A field of competitive play constituted by ambiguous, partially-overlapping, flexible, and mutually-dependent commercial and technical objects, who themselves are by nature incomplete (‘expectant’ of partnership, development, grafting, or participation).

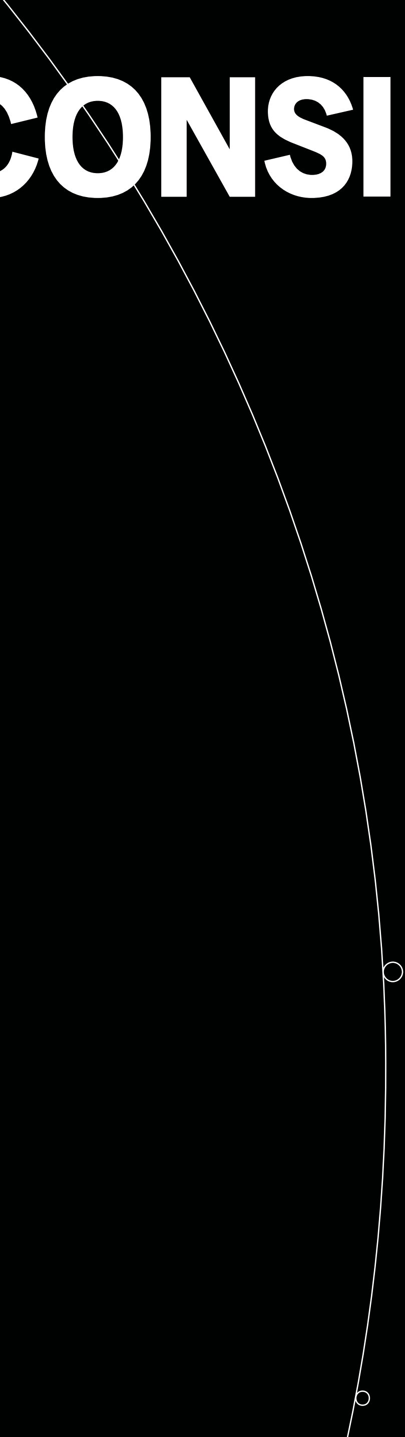
A platform is a desire for third-party completeness.

Still pretty vague.

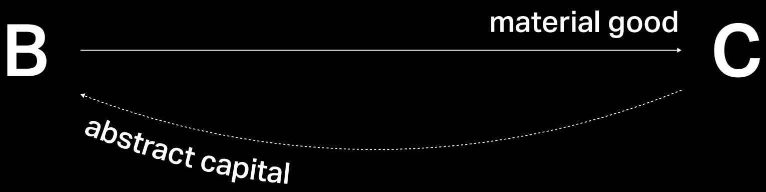
So, let's go for a materialist definition instead. How do platforms make money? That's the real question, and the answer is virtually universal across the entire software economy. Dedifferentiated, modular, incomplete software objects are created, deployed, and sustained by businesses who make money through *subscription revenue*[61] gating access into and out of their tract of virtual space. This economic model is called **'Software as a Service' (SaaS)**, with the 'as a service' bit containing the euphemism for rent-seeking.

Platforms tend to offer an array of modular products (especially at scale): little piece-togetherable, Software as a Service applications (apps, applets). The internal technical stack of any given software business (*aka* a platform) is made up of an array of these modules from external software providers (also platforms). The particular array of third-party SaaS modules deployed by a business, its map or topography, is what constitutes that business as an object and as a relational unit, as both a vendor and a customer. Each SaaS module is a knot of lean value-add, **a node within a vast fungal network through which all platforms are ultimately connected.**

CONSIDER

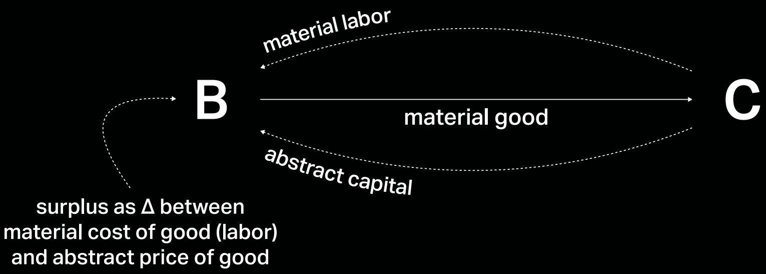


... an abstract vendor-customer relationship **B** and **C** (i.e. business and customer). A classic framing of this relationship is one between a producer and a consumer, the producer as a kind of already-vertically-integrated object (down to the level of capital itself, which is a resource framed in terms of expenditure) and the consumer as a vector of demand. The good around which the relationship circulates is material, physical, tangible and vendor **B** marshals the forces of capital in order to materialize the good:


B
material good
C
abstract capital

Marxian analysis inverts the diagram above: instead of **B** materially instantiating a good through alchemy with capital, the good (a physical assemblage) is manifestly **dematerialized** in its abstraction[62] into an entity fungible with and through capital (a commodity mediated by currency, dematerialized into a plane of universal exchange).

That same Marxian reading would further trouble the above diagram with additional vectors around capital — where does it come from, what regimes of extraction or slavery pre-guarantee its possession in the hands of **B**, etc... Moreover, the matter of labor[63] is front-and-center, most significantly in the extraction of surplus value from labor as the primary vehicle through which the relationship between **B** and **C** is both sustained and ultimately brought to a breaking point (for example, the overproduction / underconsumption problem attributed by Engels[64] to Jean Charles Sismondi).


material labor
B
material good
C
abstract capital
surplus as Δ between
material cost of good (labor)
and abstract price of good

But these diagrams look very different from the perspective of a highly-virtualized SaaS platform like Salesforce. Most critically, the good is not just no longer material, it's also no longer the thing that sustains the relationship between **B** and **C**. Instead, the relationship undergoes subsequent applications of abstraction.

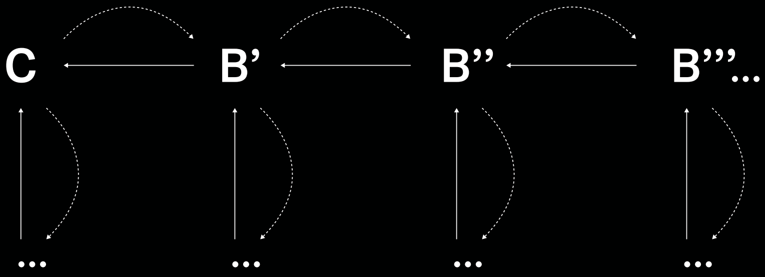
$$\begin{tikzcd} B \arrow[r, shift left, "\text{a contractual relationship around temporary access to a software module}"] & C \arrow[l, dotted, shift left, "\text{a contractual relationship around the disbursement of abstract capital over time}"] \end{tikzcd}$$

The first meaningful layer of abstraction is between the good and access to the good, the contractualization of the good, an abstraction that has endlessly-enumerated implications, most famously an association with the slogan "you'll own nothing and you'll be happy" attributed to a summary of Ida Auken's presentation at the World Economic Forum[65] in 2016 (and with the associated concept of the ambient Davos-pilled dispossession project known both formally[66] and colloquially as the 'Great Reset').

It's true – you no longer own your instance of Final Cut Pro[67], or your Dolby Atmos-spatialized Apple Music stream of Charli XCX's "Brat and It's Completely Different but Also Still Brat," or your conditional use of AI models hosted on AWS SageMaker. Moreover, the second layer of abstraction is the addition of that **temporal condition to access**, specifically the **term of a contracted subscription prior to price renegotiation**. You don't just not own the thing, you also don't control the terms of any future leases, you don't necessarily have access to the thing in the future.

One-off contractual relationships are well and good, but they really blast off in value when bundled and disseminated at scale — both in terms of volume, but especially in terms of subscription period. Longer, higher-volume subscriptions allow a business to represent their capitalization less in terms of a relationship between a good and its local value at time of purchase, but instead with future returns on a contractual relationship folded back through time to the present (the metric of Annually Recurring Revenue (ARR),[68] for example, as the re-encoding of revenue with unbound, speculative[69] temporality). It is not just the consumer who 'owns nothing' — **annualized revenue represents a dispossession of actual business revenue in favor of speculative revenue.**

Pretend that **C** is building a software company. As established above, a software company is not generated *sui generis* in a vacuum but rather *literally* constructed out of other software companies, which in turn, are themselves constructed out of other software companies (maybe even **C** itself!). The chain of relations from the perspective of **C** starts to arch and stack:



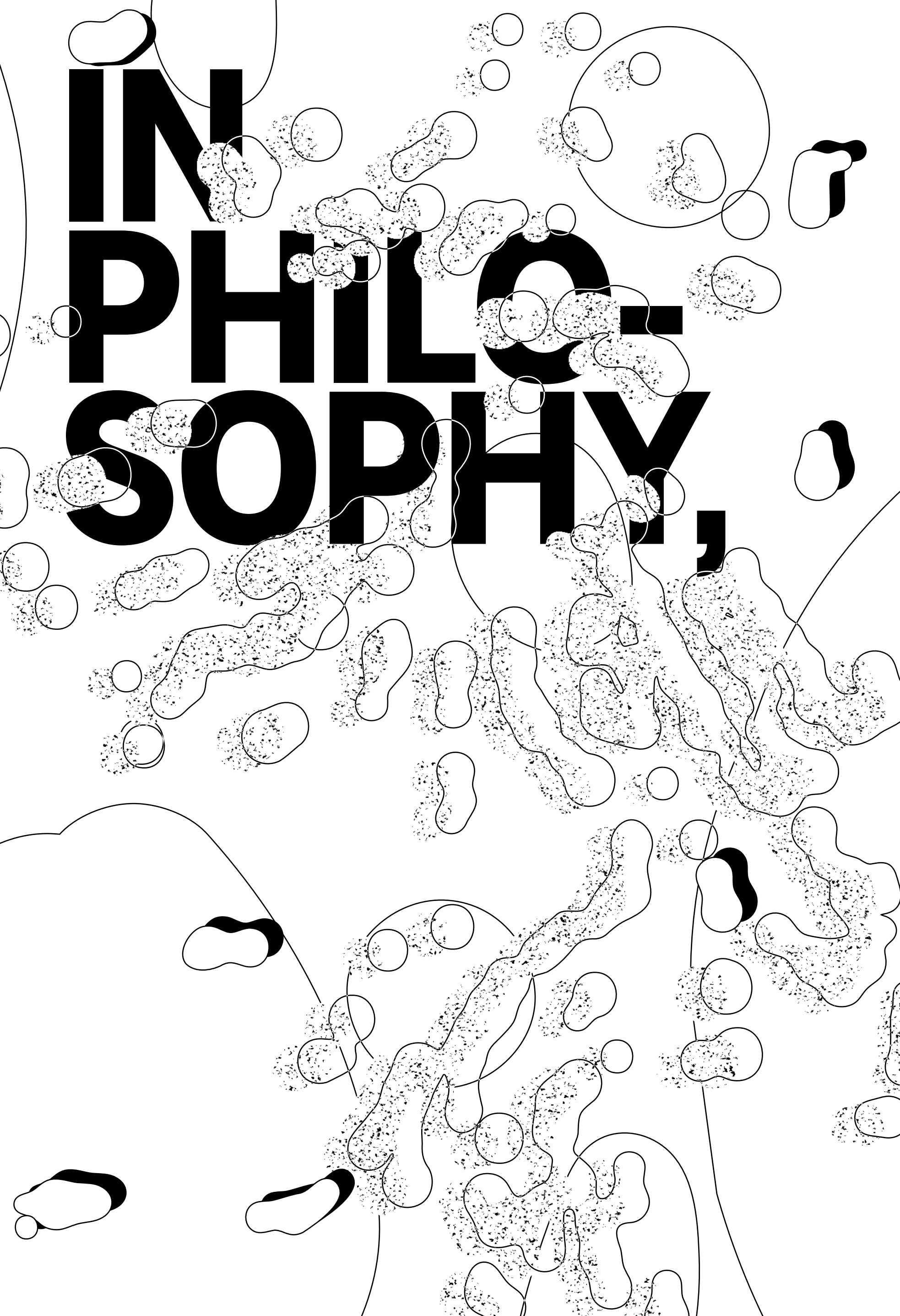
From the above example, each linkage introduces what we call a **value-added[70] node**.

The relationship between **C** and **B'** involves total or partial resale of one or many of the vendor dependencies belonging to **B'** (e.g. **B''**), reinscribed at the point of contract between the adjacent positions **C** and **B'**. To be clear, **B'** may or may not consist in its relation to **C** as more than the sum of its dependencies (apart from psychic positioning and brand work) — regardless of the content of the value, the glue that sticks together the chain of relations in **SaaS is not made of value but rather value-add, a contraction between value and relationality.**[71]

As in the case of SFDC or AWS, the above graph figure is a dramatic overlinearization of a much more complex, nested phenomenon that results when both **B'** and **B''** are each other's vendors.

From here, the fold.

IN PHILOSOPHY,



… the cosmologies associated with the fold (from G.W. Leibniz to Gilles Deleuze),

tend to have some commitments to **immanence** — the principle that a world or a universe can emerge wholesale from a single, dedifferentiated substance.[72] Folds are ontological operations through which difference emerges without a constitutive change in underlying material, like origami from a sheet of benign, white paper. Folds are also associated with dramatic ramps in complexity, from dramatic shifts in the dimensionality of an object to the potential limitlessness of its recursive application (a fold within a fold within a fold, per Leibniz: “folds go on to infinity.”)[73, 74]

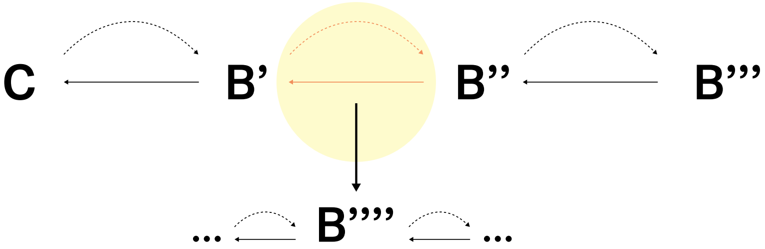
The dedifferentiated space of SaaS is prone to folds, to invisible but palpable concentrations of revenue as it flows recursively within and among a cascading array of value-added nodes, concentrations that prolapse into new registers of exchange or dimensions of information. A fold might start with a mutual technical entanglement and erupt, tensorlike, as the thousands of additional modules that leverage both tools unfurl into a foam[75] of commercial interrelation, mediated by modules whose only function consists in the patchworking of interconnection (like the iPaaS – integration platforms as a service – providers Zapier, Celigo, or the poetically-named Unito). A more substantial fold emerges when a given technical entanglement becomes so dimensionally stressed that additional modules emerge, simply by virtue of the foamy frenzy of exchange, as value-added resellers of the recombinant assemblage (e.g. Slalom, Zennify, Birst, Kaseya, Conga).

Returning to the abstraction before:

$$\begin{tikzcd}
C \arrow[r, dashed, bend left] & B' \arrow[l] \arrow[r, dashed, bend left] & B'' \arrow[l] \arrow[r, dashed, bend left] & B'''\ldots \arrow[l]
\end{tikzcd}$$

One would be mistaken to read the position of **C** within the above graph as a ‘new entry’ and therefore attribute future growth within the above diagram as contingent upon the introduction of a new **C**, **C’**, **C’’**, etc... One would likewise be mistaken to focus on the ‘end’ of the chain (**B’’’**) and its continuation outward in a series.

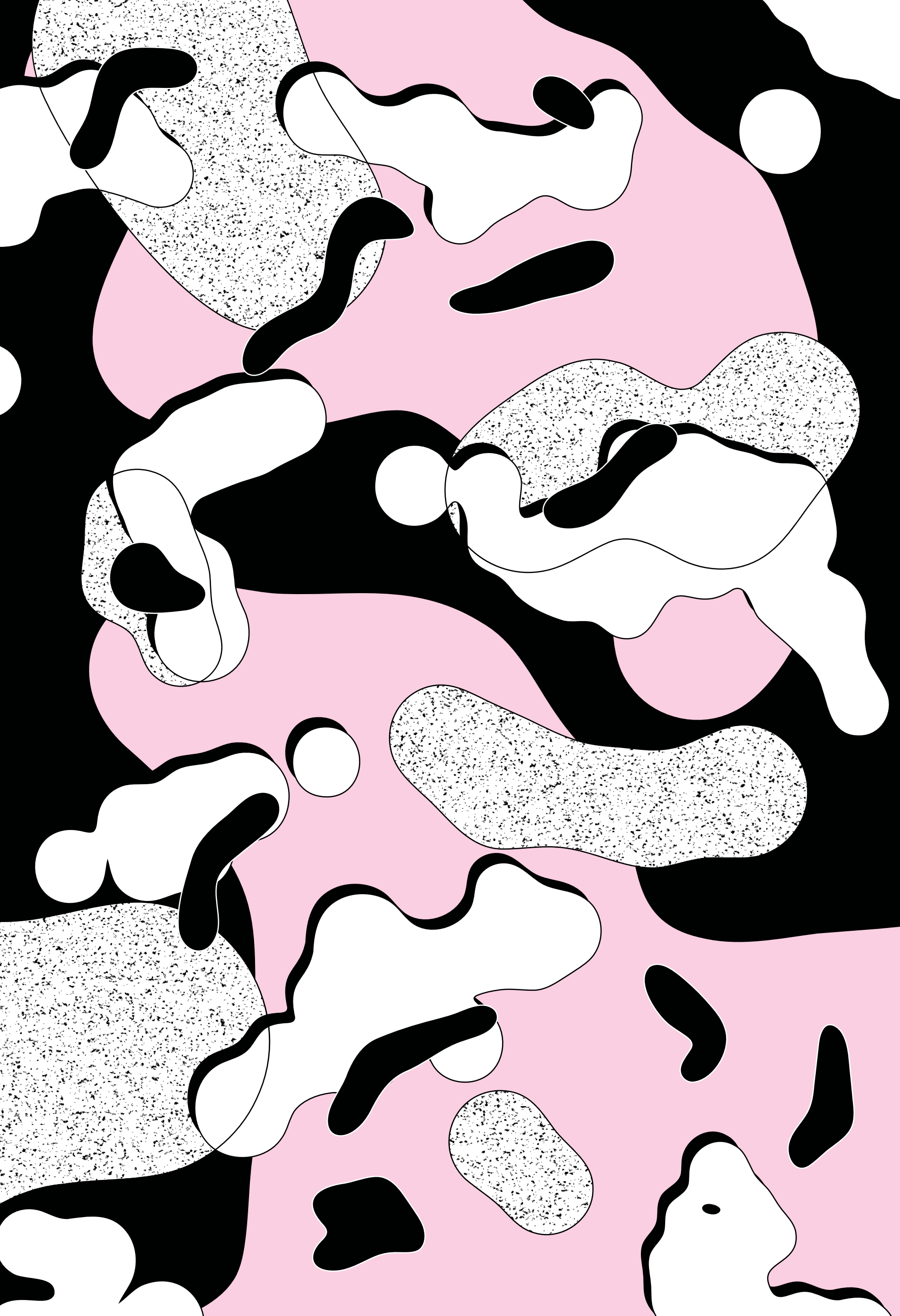
Instead, this economy proceeds inwards, through folds:



The intermediary node **B’’’’** resells the cascade of relations formally contained by **B’’** to **B’**; it consists as a discrete entity in its ability to demonstrate value-add atop the **B’’** chain. Again, this value-add can be real (e.g. a CRM platform like Gainsight, which centralizes[76] activity ingested from other platforms), it can be an ‘out-of-the-box’ repackaging (e.g. a piece of middleware that abstracts away an otherwise easy-to-solve problem, like subscribing for authentication and password management tools outside of Enterprise requirements), or it can be totally psychic (e.g. the white-labeling and repackaging of an existing module, operating like resellers[77] of Alibaba or Temu goods on bespoke webstores with an incredible markup).

Value-added nodes tend to introduce managerial metaprocess into systems: they abstract the relations they contain, compress their aggregated complexity, and serve up tools or interpretive vehicles[78] on top of the compressed aggregate to their end user. This process can continue forever; each fold articulates the becoming of a comprehensively new addressable market.

In so doing, the software economy proceeds through the production of new dimensions of relation (folds).



THE SOFTWARE ECONOMY

... obviously does not represent the totality of capitalism as presently inscribed across the surface of the earth (and in its guts and in its proximal orbit).

However, there's a strong mutual attraction between capitalism and software, there's a kind of incestual heat rubbed out from their shared inheritances in virtualization:

abstraction
In order for a thing to enter into the registers of comprehension endemic to capitalism or software, it first needs to be dematerialized, translated, and reconstructed within a virtual system of exchange and exchangeability (as do many things, including language, though it should be made explicit here that abstraction is not an essentially linguistic transformation).[79] In both cases, these virtual environments traffic in quanta as their media, erecting relativistic protocols with which to induce new orders of complexity atop the interplay of numbers.

Software emerges (constructively) from a transcendental axiomatic regulatory structure[80] whose core incompleteness as a descriptive logic for the general state of affairs[81] empowers it with energizing contingency.[82] Capitalism emerges (constructively) from an unbridled, autonomous chain of abstraction which enrolls an ever-broadening cascade of axiomatics.[83] Both actors perform[84] themselves through algorithms.

material ambivalence
Both capitalism and software can be done **on anything**.[85] The material media through which capitalism and

> software exercise themselves have diminishing returns with respect to their constructive implications upstream on either of these virtual objects. In both cases, **the material vehicles through which capitalism or software are deployed function only as limitations** on the speed or throughput of a process, as constraints on the availability of certain operations, as the breaking points of laboring human bodies, as noise-generators whispering stochastic interference, or as externalities (e.g. thermal energy) that may re-emerge as restrictive agents. If speed or throughput or intensity or volume matter, a kind of mute antagonism seeps from either of these virtual objects toward the material vehicles through which they are realized.

Let's unpack this. What do we mean when we say capitalism can be done on anything? Capitalism is a mode of description that can be applied when an object from one world (situation, relational matrix, representative layer) is transcoded into an object in another world and when the status of reciprocal representation between those worlds is in some kind of flux. The greater the flux, the greater the representative tension, the greater the possibility of identifying a moment as a representative maximum or minimum, the greater the opportunity to articulate that moment and, in so doing, return from one world to the other world with a surplus of representative potential.

This is the axiomatic of capitalism (the epithet of 'exocapitalism')[86]:

> [buy, **hold**, sell [→ buy, **hold**, sell [→ ...]]]

- **Translation** happens during a buy/sell.
- **Value production** happens during a hold (price flux).
- Any entity subject to this axiom (an asset, a derivative, a memecoin) is fungible with any other entity.

At lower levels of abstraction, labor is required to sustain and increase the value of an object prior to its sale (the retransformation of physical capital into higher-dimensional, liquid form). This is because lower-level, price-fixed, less abstract marketplaces (e.g. commodities) are insufficiently volatile, they require labor to inject artificial volatility into the representational regime between, for example, a physical world and a market (which is a first-order representation of a world in currency space).

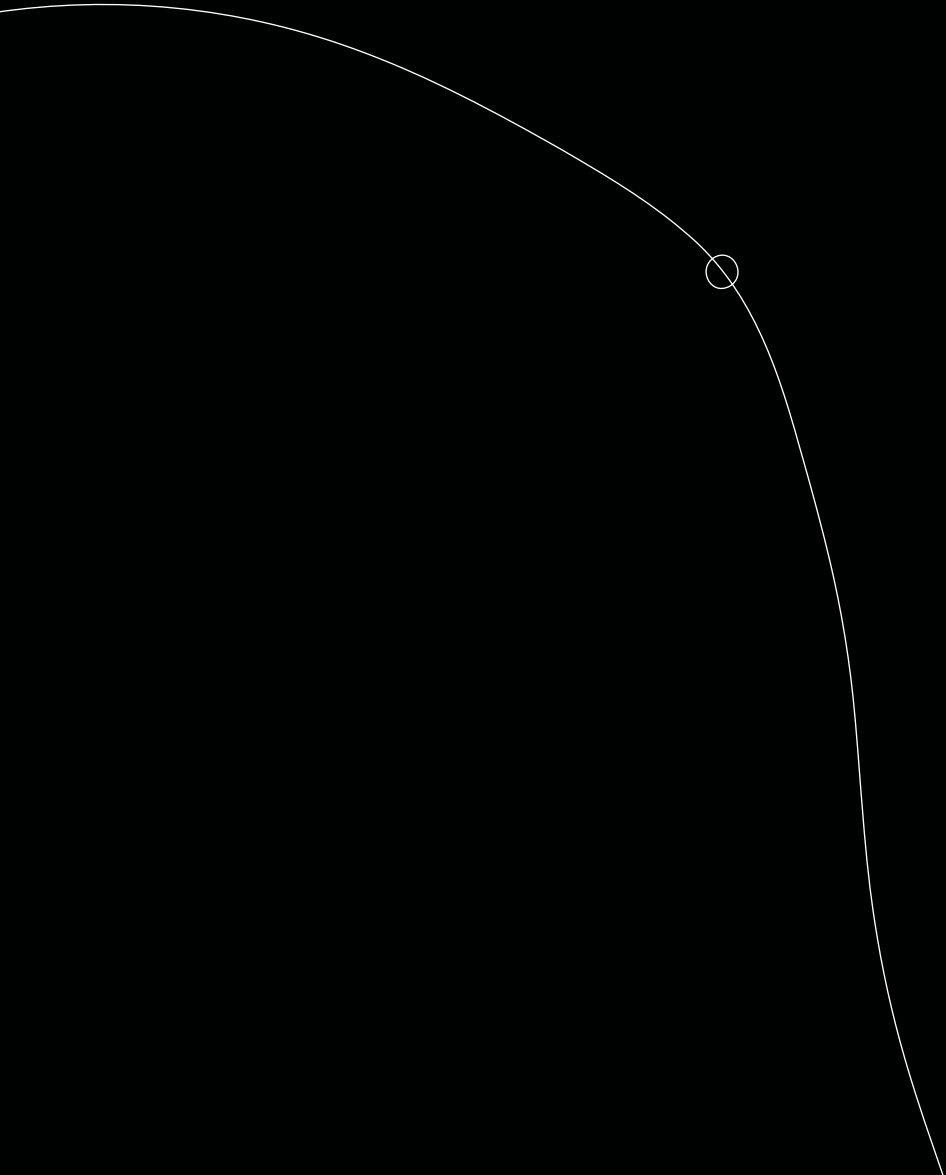
This is a weird way to think about labor, admittedly, instead of **labor producing value** – e.g. assembling wood into a chair – we propose thinking about **labor constructing volatility** in the translation between capital exchanged for wood and capital received for chair. Marxian surplus value is re-understood here as precisely the elasticity in labor cost through which the price of a commodity can be freed from strict determination. But there's only so much volatility that can be added to the commodities marketplace, the relatively fixed costs of wood and nails and the reproduction of the labor force afford meager opportunities in terms of value plasticity.[87]

Higher levels of abstraction, however, incur higher levels of volatility: a derivative, for example, absorbs all of the volatility produced at lower levels (through the diffuse labor through which the generic abstraction of the underlying asset is produced, but also through currency exchanges, through resource availability, through market sentiment, through speculated risk) into itself.

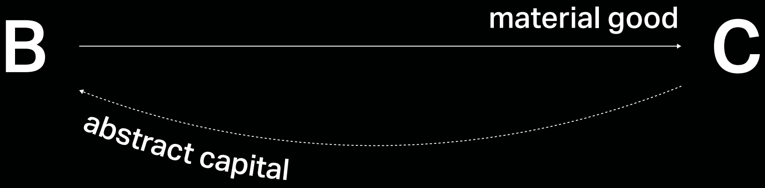
At even higher levels, there exists such a depth of volatility behind any economic object that their movements are released from determination by any discrete downstream variable. Value-production within the hold phase is simply and directly a byproduct of time, and the relationship between buy, hold, and sell are literally determined by stochastic prediction tools applied Brownian motion (random action within a substrate).[88] An entire engine of volatility runs underneath this ecosystem, an engine of volatility produced by human bodies in factories, manufacturing depots, human bodies on Herman Miller chairs, distribution centers, speciated technical objects, scarce physical resources, trade agreements, geopolitical conflicts, economic discourse, buzzing market floors, humming GPUs, etc... But the aggregated result, well, is **literally** a random walk.[89] The entire productive apparatus turns into a kind of overwrought, hyperscaled, hyperdimensional random number generator.[90]

So, returning to the proposition: capitalism can be done on anything. We mean it, capitalism doesn't require some specific system, specific resources, specific technical capacities, specific ideological motivations. Capitalism just needs stochastic motion.

CONSIDER



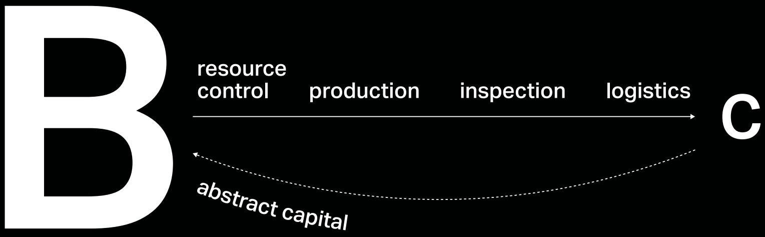
... the earlier chain of relations, with a given customer **C** and a given vendor **B**. In this case, **C** is a true consumer, who is purchasing a good from **B**:



In this particular instance, **B** is in the worst possible position.

They are delivering a physical, consumable object 'the last mile' to a customer. In doing so, their accountability as a business is most directly tied to fixed costs, to physical, material resource dependencies (in terms of physical manufacturing, assembly, quality control, shipping and logistics, and customer relations). Throughput, intensity, and volume matter to **B** and its liabilities to **C**, but these material dependencies can only be refined so much before they start to encounter physical laws, geopolitical impasses, defeated and destroyed human bodies.

There are two paths forward. A pre-neoliberal, 20th century formulation of this problem might look like this, a vertically-integrated **B** who extracts surplus value not only from labor but from the ability to outcompete within a market through efficiencies gained by total dominance of every aspect of the supply, production, and logistics chain:



One could consider the midgrowth stages of IKEA[91] as an exemplar of this method: build a brand based on an aesthetic and quality standard associated with a wealthy European nation, grow by dominating each aspect of the supply and production stage and use that vertical structure to consolidate costs and generate efficiencies.

However, IKEA learned throughout the 1970s and beyond, this particular approach to growth does not scale, and IKEA quickly transformed into a design house, a franchise,[92] a massive contracting agency to outsourced industry,[93] and ultimately a digital marketplace. Often, mainstream consensus attributes the lower costs of overseas manufacturing (e.g. cheap labor) as the first gesture toward neoliberalism. But it seems every bit as reasonable to invert this narrative, instead pointing to the liabilities of fixed costs,[94] massive and unnecessary capital expenditure overhead, geopolitical[95] risk, and infrastructural inflexibilities associated with vertical scale.

The first wave of neoliberalization looks like this:

$$\begin{tikzcd}
B \arrow[r, dotted] & B' \arrow[rr] & & C
\end{tikzcd}$$

B does business directly with **C**, outsourcing production, shipping and logistics, QC, customer service, or other objects with material dependencies to a third party, **B’** (for example, a textile manufacturer in Bangladesh or an international 3PL provider). This chain pushes outward, with friction (restrictive dependencies on physical capital or logistical complexity) increasing as the graph moves from left to right:

$$\begin{tikzcd}
B \arrow[r, dotted] & B'' \arrow[r, dotted] & B' \arrow[rr] & & C
\end{tikzcd}$$

$$\begin{tikzcd}
B \arrow[r, dotted] & B''' \arrow[r, dotted] & B'' \arrow[r, dotted] & B' \arrow[rr] & & C
\end{tikzcd}$$

New registers of business blossom across multiple orders of simultaneous management layers,[96] with the addition of non-business or para-business actors **O** (e.g. slavery in the case of industrial shrimp farming off the coast of Thailand,[97] or the ‘artisanal miners’ in the case of cobalt extraction[98] in the war-torn DRC, or the precarity labor in Amazon logistics centers in Tijuana).

$$\begin{tikzcd}
B \arrow[r, dashed] & B''''' & & & & & \\
& B'''''' \arrow[r, dashed] & B'''' & & & & \\
& B''''''' & B''' \arrow[r, dashed] & B'' \arrow[r, dashed] & B' \arrow[r, dashed] & O \arrow[r] & C
\end{tikzcd}$$

We name the leftward drift of **B** from **C** in this graph **lift** – the tendency of capitalism to move itself away from fixed costs, from the soil, the earth, the sphere of human affairs. **You can think of lift as the negative definition of financialization**, describing a motion away instead of toward. It’s a kind of distaste or aversion, an allergic bias or algorithmic dampening, flight.[99]

Examples of lift are literally everywhere, felt most tangibly in the indifference with which goods and services are ultimately delivered to humans, colorized most lucidly in the bottom-line decision-making of a business when it finally shakes off the dead weight of consumer-driven obligation and launches off into pure financial engineering.

Lift is in the 9 different Delta Airlines boarding groups, 5 of which are associated with credit card tiers.[100] As Caroline Busta puts it, lift is in the intentional time-dilation in airport transit time to facilitate duty-free shopping.[101] Lift is in the pears ‘grown in Thailand, packed in Argentina, eaten in the UK’ meme of 2021.[102] Lift is in Daniel Felstead’s “janky capitalism,”[103] the mediation of daily life through a cascade of disinterested, random apps.

In the episode “Dennis Takes a Mental Health Day” from the FX sitcom *It’s Always Sunny in Philadephia*, the lead character is routed through an endless array of x-as-a-service providers, platforms, and apps that immediately demonstrate the awkwardness with which the lifted world frustrates those humans trying to navigate its downdrafts:

> Okay, so I called the car rental company, and they put me on with a supervisor who told me to call Tsuma Roadside, so I called Tsuma Roadside. Spoke to someone over there who put me on with another supervisor who told me to call the service center. So I called the service center, spoke to about... I don't know... two, three morons over there who had no answers for me whatsoever. They put me on with one of their supervisors, and that person told me to call the car rental company again. So I called the car rental company, then roadside, service center, rental company, roadside, service center, rental company, roadside, service center, and around and around and around like that for hours and hours, until finally someone had the presence of mind to let me know there's a goddamn customer care line. Okay, so I called the customer care line and now I find myself talking to you, Daisy, my little wildflower. And you ask me to enter in my VIN and my date of birth again, information which I already entered into your system. Okay, now, now, listen, Daisy, Daisy, bear with me here, okay? I know you didn't create the system, okay? So you are not to blame. But somebody did create the system, and I would very much like to blame that person. So... Who is that?[104]

You can almost always get to lift by repeatedly asking the question: how does this business actually make money? What do they actually do? What are their actual priorities?

While the hotel business in principle sources its revenue from a physical dependency on bookings, this dependency presents nothing but limitation to the scalability of the enterprise. There are only so many people, so many rooms, and (most importantly), there is only so much optimization that can be applied to the operational expenditures of a hotel before it starts to literally crumble.

What to do but lift!? A hotel conglomerate lifts by abstracting itself from this dependency by one or more orders, first transforming from a physical service provider to a lessor of brand property to franchisees, and then second by entering full force into an abstract marketplace constructed around the exchange of points with purely financial enterprises (e.g. credit card companies). The loyalty point is one of many lifted currencies, the abstraction of an abstraction into more virtual and privileged meta-economies, economies whose dynamics are more contingent, more fluid, more anarchic: see also frequent flier miles, the credit card point (the dynamic exchange values[105] of American Express points based on card type), gaming currencies (V-Bucks or Gold), carbon credits, stock options and equity compensation, and (of course) crypto.

The 2007 acquisition of the Hilton Hotel Group by private equity firm Blackstone set off lift after lift after lift, the first big lift consisting in the acquisition itself – a business that once functioned as a service provider to humans underwent a phase transition into a debt-injection vehicle for private equity.[106] More lift occurred as Hilton Hotel Group was subtilized within that larger private equity object into a modern, franchised, IP and software company,[107] exiting back into the public market with a big fat bang.[108]

(One can find a more uncanny and insane example of this in Anbang Insurance Group's purchase and transformation of the Waldorf Astoria New York, in which the hotel was scuttled off from the broader Hilton organization for almost $2 billion USD.[109] Anbang intended to convert a large chunk of the building into luxury condos thereby converting a service provider into an iconic vehicle of speculative real estate investment. Anbang was ultimately subsumed by the Chinese government[110] for fraud, the hotel is currently owned by the Dajia Insurance Group, and it hasn't opened since it was closed for metamorphosis in 2017.[111] Another empty building in New York[112] owned by overseas speculative investment instruments).

Examples of lift are everywhere, from SoftBank's origin in telecommunications to its present status as global investment behemoth – **truly a first order conversion from consumer infrastructure to totally lifted speculative finance vehicle**,[113] from Deutsche Post's origins in physical mail to its present status as meta-management object[114] atop a whirlwind of global logistics partners (including its acquisition of DHL), IBM's transition from building computers to selling software services,[115] Philip's pivot from consumer goods to digital healthcare platforms,[116] Alibaba's move to the Cloud, the rise of the energy-as-a-service model[117] bisecting utility companies from energy companies, BP's stake in carbon credit trading,[118] and of course all the classics: Uber/Lyft, WeWork, Airbnb, etc...[119]

Lift is the transition from material to abstract, from dependency to affiliation – it's a Homer-Simpson-in-the-shrubs-style retreat from the ickiness of the supply chain until one is so far away from the real world that any risk in those material layers happens with enough removal that new upstream affiliations can pivot to compensate. Lift jumps from production and consumption to fully-automatic capital generation. **Lift is the transition from a hardware economy to a software economy.**[120]

Lift represents the imperative to move away from the soil, from physical capital and human labor — but not simply due to business need (leanness: the outsourcing of low-margin, hard to maintain, expensive, politically charged, physically remote activities) and instead the machinic impulse toward abstraction (lightness: modularity, agility, airiness, independence, looseness, incompleteness). Lift hollows out a cavity between material conditions and operational systems by wedging abstraction layers in between the two — a black hole of sufficient alienation such that there exists less and less connection between material labor and managerial metaprocess.

The airline industry consists of advanced practitioners of lift (no pun intended). Basic, consumer air travel hardly contributes to the industry's razor-thin margins, apart from its revehicalization into a loyalty points marketplace (e.g. between Delta Airlines and American Express). The loyalty points marketplace contributes to what the industry calls 'ancillary revenue,' a funny name for such a large, insanely-high margin revenue stream:[121]

> For airlines, selling miles is a highly lucrative business. According to a 2019 report by Skift, more than 60% of frequent flyer miles are now earned through non-flight activities, primarily through credit card spending. Airlines sell miles to credit card companies at a markup, generating significant profits.
>
> To understand just how lucrative this is, Delta's SkyMiles program generated nearly $3 billion from the sale of miles to partners like American Express in 2019. The relationship between Delta and Amex has proven so profitable that the companies signed a 10-year extension of their partnership, which runs through 2029. Similarly, American Airlines' AAdvantage program brought in over $4 billion from partnerships with Citi and Barclays.

> This is where unit economics play a significant role. The cost to the airline for creating a mile is typically less than 0.5 cents, while it can sell miles to partners for between 2 and 3 cents per mile. This high margin allows airlines to generate billions in revenue from selling miles alone. The value of frequent flyer miles isn't tied to actual flights; it's a currency created by airlines that financial partners are willing to buy.[122]

The remaining bulk consists of business bookings[123] (mediated through SaaS platforms like TravelPerk, TripActions, or CTM) or first-class bookings (delivered at a much higher margin), both of which flow downstream from this loyalty-points driven economy. Basic, economy air travel is often delivered at a loss[124] for an airline, largely due to the price of fuel. But the dependency on fuel as a material limit to the scalability of the industry is mitigated through the industry's practice of fuel hedging. Here's where things get interesting...

Instead of purchasing oil directly, airlines purchase derivatives on oil: contracts with abstract associated premiums for a future purchase of oil at a future date for an abstract associated price.[125] For the uninitiated, a futures contract is a type of derivative, an agreement to buy or sell an asset at a predetermined price on a specific future date (with an attached premium for the privilege of doing so). Airlines buy and sell fuel derivatives contracts on the open market, in a sense not buying fuel, but buying the possibility of buying fuel at a certain price (and therefore hedging against potential fuel price increases).

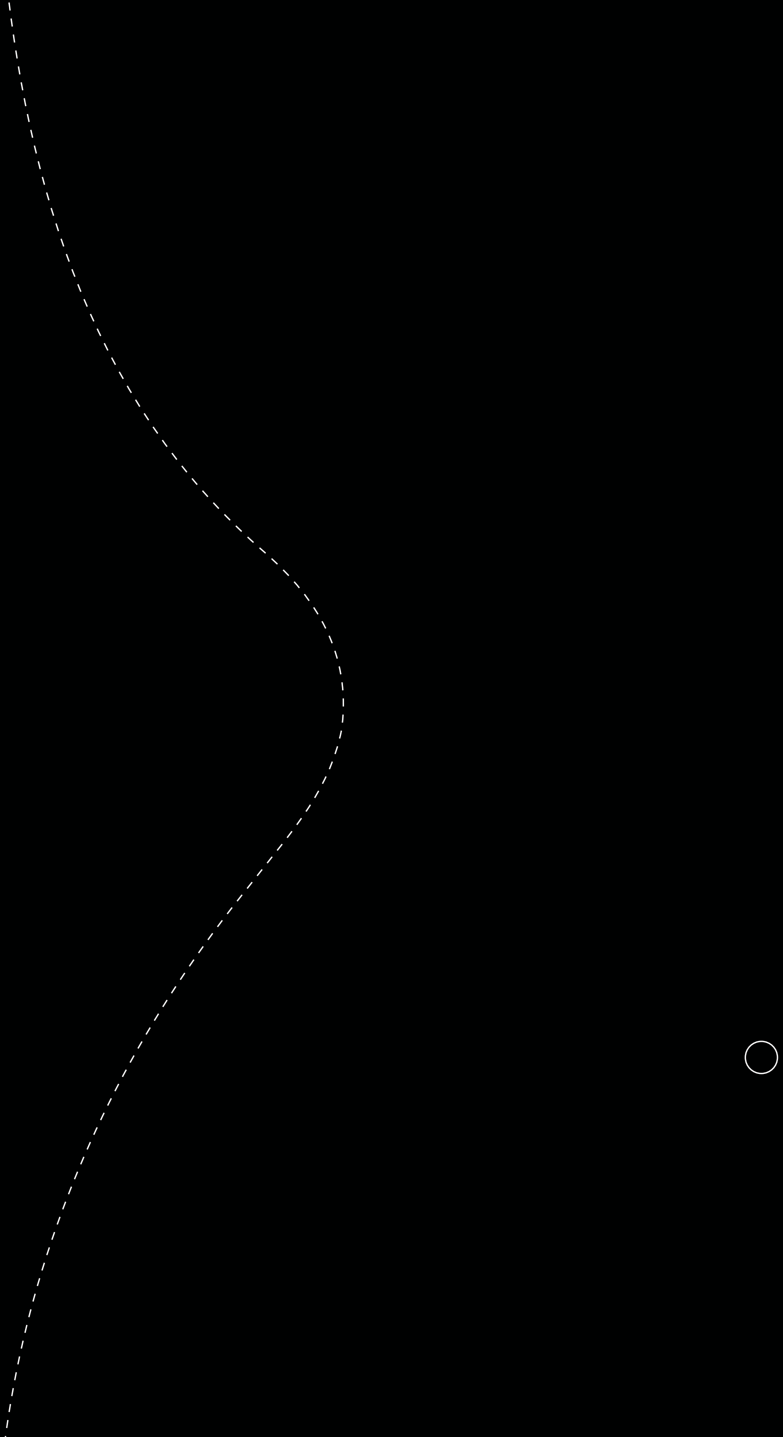
By engaging in this practice, airlines outsource the risk and volatility of a material resource into the financial domain, working less with the actual procurement of fuel and more with the management of price fluctuations through instruments that do not involve the physical commodity itself.[126] As a result, an airline is not really managing a fuel supply, but rather managing a set of abstract price exposures. And – as always – a consequent cottage industry compounds this abstraction layer, from strictly financial institutions and brokers to consultatory services to the very masters of hedging practices: insurance providers.

The higher you go up the lift axis, the more velocity you find — here we can trot out the oft-cited statistic of the derivatives marketplace exceeding the size of the aggregated stock marketplace by one order of magnitude, and the stock marketplace exceeding the commodities marketplace by one order of magnitude.[127]

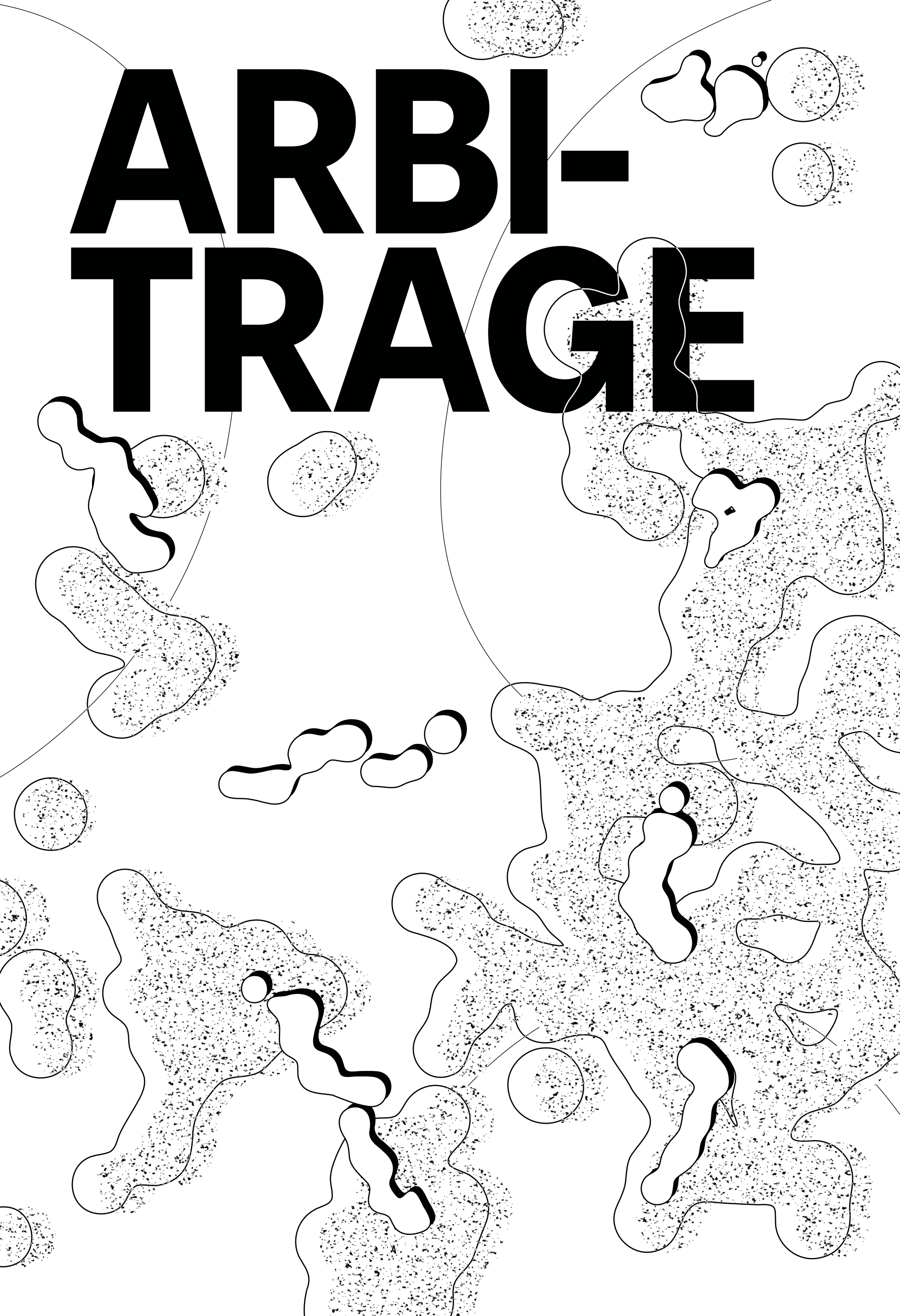
The summits of lifted capitalism are crazily far away from commodity relations. These summits capitalize on the noise of commodity relations, abstracted fully into a literally random storm of volatility. Actions therein consist of the highly automated, algorithmically-driven capitalization of time itself.

An estimated 50% of market activity (trades) consists in what is called 'high frequency trading' (HFT) – trading that exercises micro-second-level specificity in entry and exit position.[128] But a broader 75-85% of general market activity (i.e. trades) are enhanced by digital automation, mostly constructed against interpretations of the market as literally modulated random noise, using deep learning algorithms (ARCH/GARCH, ARIMA) to identify general, mathematical tendencies within random walks of data against which to place and execute bets (buy, hold, sell). **To be extremely, declaratively clear – the underlying relations against which these bets are made are *very literally irrelevant* to the betting agents themselves, those underlying relations operate in this context as noise generators, as totally arbitrary number lines with this or that profile of random behavior.**

At these higher positions, the operations of capitalism resemble to a greater and greater degree the simple mechanics of arbitrage (the kernel of capitalism, the axiomatic of capitalism): profit flows from the random discrepancies between a stock's asking price and its selling price that manifest when some underlying asset, however abstracted, pops into and out of a given marketplace.



ARBI-
TRAGE



... predates capitalism – or, perhaps, the earliest instances[129] of documented arbitrage represent the origins of capitalism in early mercantile systems. An arbitrageur is someone who buys something in one market at a lower price and simultaneously sells it in another market at a higher price. Arbitrage is encoded into the axiomatic of capitalism (it is the purest form of 'buy, hold, sell').

At its core, arbitrage is really all about time. Neither the underlying asset nor the currency medium through which that asset is abstracted change in any manifest way, but somehow – *pop* – value is generated simply by virtue of the temporality of exchange.

Arbitrage has always been deeply embedded with time – the latency of transport (e.g. the arbitrage conducted throughout the 17th and 18th century 'triangular trade' between Europe, Africa, and the Americas), the fluctuation of market conditions (e.g. the respective value of gold and silver in London and the Dutch Republic), the time it takes to assess a position across an array of markets (e.g. the offsetting required by Medieval merchant bankers), the time it takes to execute an operation (e.g. travel time to the most profitable location at which to execute the transaction).[130] But it is the derivatives and futures marketplace, particularly as exercised at full blast in microtime, that the simple axiom of capitalism makes itself extraordinarily clear: **time (the hold), and the frictions and latencies through which time is accessed, is quite literally money**.

Suhail Malik's concept of the *arkhéderivative*[131] indexes a significant moment somewhere within the lift process from a determination of price and value based in neoclassical economics (e.g. the relationship between the supply and demand of a good, i.e. "exogenously-derived valuation") to a new schema of price and value wherein "price as such, and value after it, are constituted by and instantiated as *différantial* pricing wherever and however spontaneously they happen."[132]

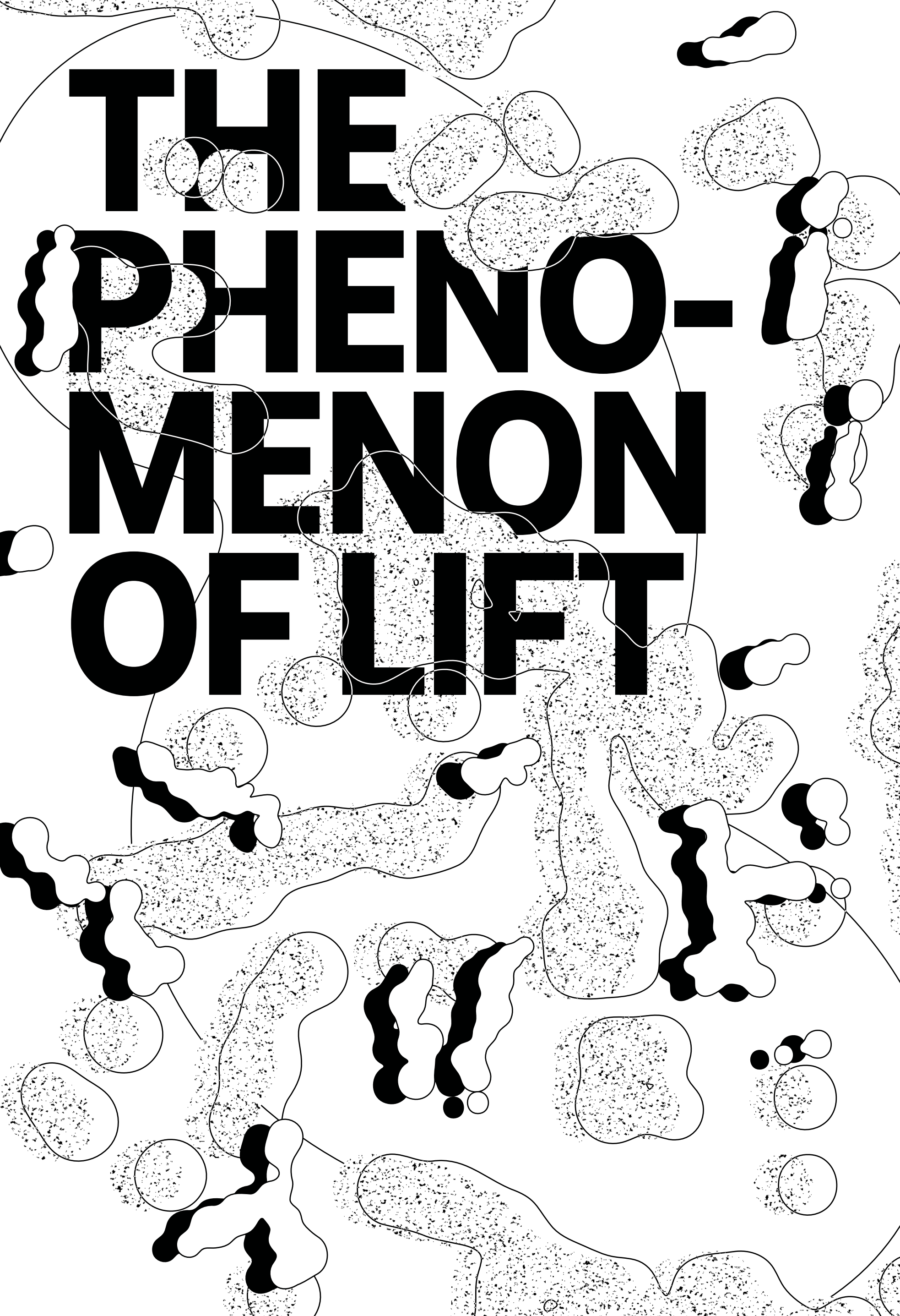
Malik invokes Derridean *différance*,[133] using it to assign an intrinsic variability to the abstract vehicles of capital (price, value) with special respect to their contingency in time. The position of price and now value is necessarily speculative, therefore temporally displaced in either position's designation as potential statements about the future as opposed to discrete assessments of a present state of relations. A fully-lifted marketplace unbinds from the local pressure-systems of goods and services,[134] it freewheelingly *constructs price* and therefore value and therefore capital in an unlimited capacity *out of nothing* but the relativistic tides[135] of a hyperdimensional virtual ocean. The *arkhéderivative* articulates a completely self-contained basic economic unit (the “a priori financiality of capitalization”)[136] that sizzles in and out of being like matter and antimatter in quantum foam.

As Elena Esposito puts it: “[r]isk has always been traded in markets. What is new is the development of markets that deal only with risk, which have learned to standardize risk enough to be able to exchange it and give it a price.”[137, 138]

For Esposito, this standardization emerges through the mechanism of arbitrage, which “eliminates imbalances” through a distribution of bets on the resolution of a given imbalance. If a price disparity exists, arbitrageurs act on it until the imbalance disappears; a self-regulating machine. Arbitrage becomes more and more necessary in this capacity as a marketplace becomes more and more self-referential, more and more abstract.[139] By virtue of keeping these self-referential dynamics in play, arbitrage allows those dynamics to ferment, to get weirder and weirder, to continue outward in their random walk along artificial desire lines. “When one tries to protect oneself, and thus perhaps feels safe, one makes the future even more unpredictable.”[140]

Real fracture, real detachment, real departure from the immediate sphere of human affairs. In the case of the most lifted actors, the linkage between **B** and **C** actually breaks, and with it comes the ability of **B** to move at unthinkable speeds and unthinkable scales (both very big but especially very small).

THE PHENO-MENON OF LIFT



... doesn't just operate at the tweaked-out hyperscales of BlackRock[141] or Bain Capital (or Nestlé or Huawei), but rather can be felt across the full spectrum of economic activity, including the humdrum cringe-verse of sole proprietorships. The affiliate marketing industry, for example, teems with outstretching ferns of local-scale abstraction and thickets of value-added managerial (and meta-managerial) abstraction layers.

In its basest form, affiliate marketing involves a transaction between a social media influencer and a sponsor in which the former is rewarded for driving traffic or sales to the latter's website. Already this construction bears the classic mark of neoliberalism: labor once performed by an overpaid in-house marketing team moves to labor performed by a contracted third party (e.g. a marketing agency contracted for one-off gigs) to... well... a form of labor performed by literally every little online dreamer in a ring-lit cubby for pennies on the dollar.

In the case of affiliate marketing, the activity of the contracted marketer in service of the sponsor transforms from a generated good (entertainment) to a deferred vehicle of speculative commerce (marketing collateral). "[... T]he borders between "artist" and "influencer" are blurring" – writes Maya Man – "[t]he explicit job description of influencers involves laboring online with an independent entrepreneurial strategy."[142, 143] Replace 'artist' here with 'small business owner' or 'self-employed person' or 'creator' – any of the above identify the same economic unit or operator.

The gradual lift of producers into influencers is described by Sophie Bishop as "influencer creep," with the scope of work therein transforming from the strict production of content to work directly on the surface of "the means of establishing and maintaining visibility"[144] within a social media marketplace. The nature of work in small-scale enterprise lifts from production to strict marketing work (content marketing, events marketing, etc...).[145]

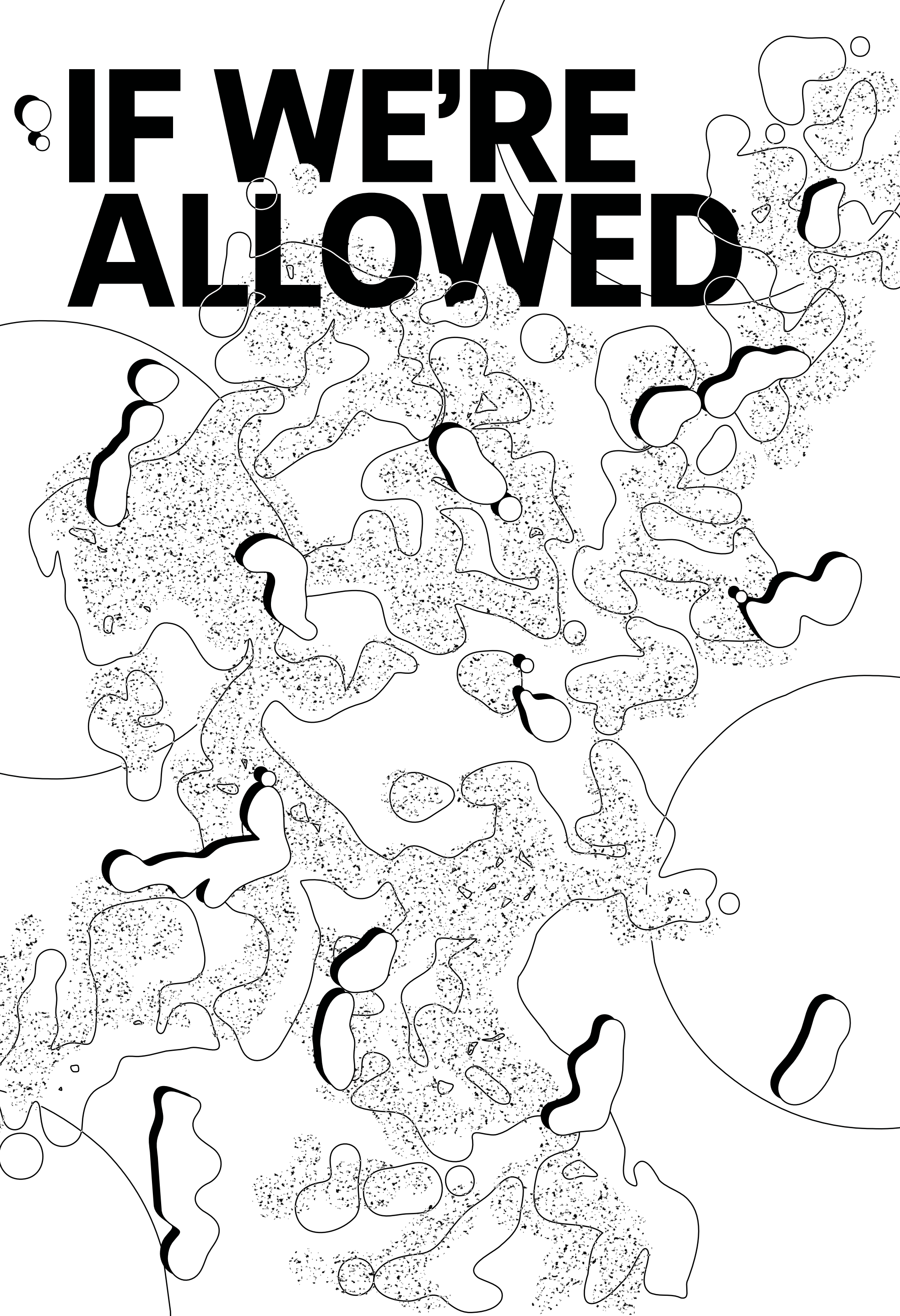
The productive act languishes. Product becomes loss – 'on-the-books' inventory, tax-deductible loss, liability, margin dilution – in the service of **the real work**. Goods purchased with which to generate product transform from capital expenditure to operational expenditure: a guitarist's purchase of a guitar moves from an investment in a general project of music-making to a one-time business expense for a piece of sponsored content, ingesting and defecating gear through resale markets or (if you're lucky) loaned goods, leveraging this guitar for this video, this guitar for that video. A ceramicist transforms into a consumer goods advisor on ceramics production, weighing in on this or that clay, kiln, or wheel. A chef becomes a knife salesperson, a software engineer becomes a LinkedIn Top Voice[146] on the general state of software engineering, a dedifferentiated but otherwise popular person becomes a subscribable object on Patreon. The commodity position of the underlying assets shudders, speculative bubbles[147] emerge, and the end-products incidentally constructed through which to promote these assets face-dance with the aesthetics of strict marketing collateral.

Lift is even more acutely felt in the businesses that aggregate on top of the one-to-many affiliate marketer: the affiliate marketing coaching business, the affiliate marketing coach-coaching business, the sprawl of budget optimization[148] tools and advertising tools (Smartly,[149] AdEspresso) and their integrations into platforms like Instagram or TikTok, and the sprawl of affiliate network organizations like ShareASale,[150] CJ Affiliate, or Rakuten Marketing. The exclusive content industry, for example, experienced a similar transformation from pay-per-view print or video content, to sole proprietors performing as platforms within platforms (e.g. OnlyFans, Fansly, wherein a producer acts like a SaaS company by charges subscription rates for temporally-gated access to content), to affiliate partnerships with relevant brands, to cookie-cutter managerial and meta-managerial enterprises of exclusive content producers.

Middle-class workers[151] became contractors. Contractors became advertisers for their contract labor. Advertisers became consultants. Consultants became coaches. Coaches became meta-coaches who coach other coaches.

And so on, and so on, and so on.

IF WE'RE ALLOWED



... to distill ‘capitalism’ into something as pure and simple as **value produced through the volatility of the hold**, then it’s fair to conclude that capitalism is far older than it is putatively understood to be. Almost every historian of capitalism will protest, identifying capitalism strictly with the extraction of surplus value from ‘producers’ – like Ellen Meiksins Wood, for example:

> Here, then, is the basic difference between all pre-capitalist societies and capitalism. It has nothing to do with whether production is urban or rural and everything to do with the particular property relations between producers and appropriation, whether in industry or agriculture. Only in capitalism is the dominant mode of appropriation based on the complete dispossession of direct producers, who (unlike chattel slaves) are legally free and whose surplus labor is appropriated by purely ‘economic’ means.[152]

But, as we’ve noted, this is a much harder leg to stand on in a post-productive economy, where value accumulates onto the surface of hold time and not a chiseled byproduct of hard-muscle labor.[153] Later chapters of this book will also dismantle the second section of this argument – the ‘unlike chattel slaves’ part – where the last-mile physical dependencies of the so-called global capitalist economy do actually resemble to a greater and greater degree chattel slavery than they do more abstract modes of dispossession.

One could follow McKenzie Wark and declare the present state of the affairs “not capitalism anymore”[154] – but at the cost of prioritizing social analysis over inquiry into the underlying economic model itself, losing precious continuity between this moment and thousands of years of commercial history.

If we do choose to focus on the economic schema, however, we do find something very old indeed. As David Graeber points out in *Debt: The First 5,000 Years:*

> We did not begin with barter, discover money, and then eventually develop credit systems. It happened precisely the other way around. What we now call virtual money came first. Coins came much later, and their use spread only unevenly, never completely replacing credit

> systems. Barter, in turn, appears to be largely a kind of accidental byproduct of the use of coinage or paper money: historically, it has mainly been what people who are used to cash transactions do when for one reason or another they have no access to currency.[155]

According to Graeber, despite the conventional narrative that barter developed as a kind of 'natural' basis for trade based simply on local material need, barter in no way came 'before' money, nor does it represent a kind of primeval economy. Instead, the opposite occurred – credit came first, and with it the first-order conversion of the world into a speculative futures exchange. (Credit is already almost a type of futures contract, in that both abstract **value** into **promises**.) 'Virtual money,' in Graeber's parlance, consists of tokens, the units to which virtual planes of commerce are reducible.

Tokens (currencies) stack.

First-order 'virtual money' consists of first-order virtualization: a one-dimensional money graph, a single-currency marketplace with variable rates of exchange into and out of token-space. A first-order token could only exist in a completely closed, hyperconnected community with one currency, one market, and totally centralized pricing delivered at lightning speed throughout the entire marketplace. These things never exist at any kind of scale before accumulating additional dimensions.[156]

As soon as tokens collide with a world, with another token, with an economic border, with the rough topology of a dynamic array of distributed marketplaces, with local, relative, asynchronous price determinations, then second-order tokens emerge. A second-order token might be one that, for example, facilitates between other tokens, or a token that freezes the future first-order price of an underlying asset (a derivative),[157] or a token which underpins the underlying value of another token, or just a random memetoken in the mix that swells and drains randomly.

The token is a kind of platonic value-added intermediary; it doesn't just mediate between other things but it creates a new commercial dimension within which those mediated things collapse into points. The tokenization of a world literally produces the value of a world. The second-order tokenization of the world (the tokenization of a token-space through new, intermediary tokens) unlocks new regimes of value. Every successive layer of the token stack introduces further relativistic volatility, new entropic fields around which arbitrage circulates. This isn't to argue necessarily that capitalism was baked into the 'original sin'[158] of first-order virtualization, but we are certainly insinuating that the collision between first-order virtualization and scale probably induced the original incidence between capitalism and the human species, far, far earlier than modern, Eurocentric accounts suggest.

Token entropy is lift. The downdraft of token entropy is Marxological alienation. Marx nodded at "the connection between this whole estrangement and the *money* system."[159] If one is remunerated from labor at the grist-mill not with flour, but with a representation of potential flour, a token for flour whose conversion rate into flour is dynamic both at the point of assignment (wage) and at the point of exchange (at the 'flour-shop'), the mapping of a worker's labor agency between flour-production and compensatory flour-buyback gets weird, nonlinear, random.

Things get weirder the higher up the token stack you go, like with the Play to Earn game *Axie Infinity*. Axie Infinity is really, really weird; it's a kind of high-order shell economy in which an n^{th} order token is the direct compensatory return for playing a hacky iOS and Android game that "looks a lot like Pokémon."[160] The particularly nubile token at stake, "Smooth Love Potion" (SLP), is earned through in-game activity and leveraged to 'breed' Axies – digital pets that in their one-of-a-kind singularity are also ERC-721 non-fungible tokens (NFTs) with their own satellite economy. Because it "can take time to accrue SLP through the game," one often needs to make an initial investment to start breeding: buying "SLP on the open market is a way for gamers to get a headstart."[161] The weirdness of Axie Infinity was much-discussed throughout its rollout, specifically the popularity the game enjoyed among underpaid populations in the Philippines looking for an alternative to minimum-wage precarity labor. The burden of that initial investment spun up a new kind of mobile game Satanic Mill:

> As the price of SLP continued to shoot up last summer, many aspiring players found themselves unable to afford the cost of purchasing their starter monsters. So an employment scheme emerged in which wealthier investors, known as "managers," would buy Axie

> monsters and then lend them out to "scholars," who would handle the grunt work of leveling up. The owners of the monsters would then pocket anywhere from 30% to 50% of the scholars' profits [...].[162]

Perhaps predictably, the economy that sprouted out of Axie Infinity was ripe with abuse, labor alienation, and financial insanity – two successive boom-and-bust cycles annihilated the value of the SLP, its respective valuation in the hands of workers who had burned endless nights playing a random digital monster mobile game, and even the 'play to earn' component of the game altogether (the game, somehow, is otherwise still alive).

The higher up the token stack, the more contingency, the more opportunity, the more risk. Play at the tops of these pyramids is best reserved for those with maximum hedging capacity.

Axie Infinity was constructed with the kind of Utopian vision found only in the Silicon Valley ideological diaspora. Even two years after those boom-and-bust cycles that devastated the SLP economy, Axie Infinity's co-founder Aleksander Larsen still upholds the vision that "the potential for blockchain games is actually to be a provider of jobs for hundreds of millions of people around the world [...;] it will create GDP for the world in a way that we have never even thought about. [...] That is actually not dystopian to me."[163]

Larsen's bullish optimism here is expressed at the level of Axie Infinity's architecture: the objective of Axie Infinity was (and still is, without the economic incentive) 'community building' – an affable term but one which has always been a euphemism for network effect. Larsen's goal was to get people to play the game, so his game paid players (at minimum viable thresholds) for playing the game. However, like a Ponzi Scheme, the real Axie Infinity economy emerges at scale, in which human game-playing labor is bought and sold on weirder and more local markets (almost as a surrogate for more expensive machine labor) for network effect.

Playing Axie Infinity was different from Bitcoin or Ethereum mining. Axie Infinity was much more traditional – a Pyramid scheme – than the truly lifted economics of mainstream crypto. Axie Infinity incentivized network effect, Bitcoin and Etherium incentivized infrastructure construction.

The mechanics of Bitcoin and Ethereum mining consists of 'proof of work' – the investment of computational resources toward the integrity of the underlying blockchain ledgers. When a given GPU solves a given dense, mathematical 'proof of work' Bitcoin puzzle, they add another block to the blockchain, appending to the ledger with a stamp of authority manifested through the completion of that work (the hash value obtained through the execution of that mathematical puzzle). The longer the ledger grows, the more complex and inefficient it might be to contravene the system in some way (e.g. by rewriting transaction history or duplicating transaction activity in bad faith).

Ethereum's 'proof of stake' mechanic subjects Bitcoin's material dependency upon 'proof of work' to lift: instead of relying on hissing GPUs to push through hash problems, 'proof of stake' simply rewards stakeholders for, well, holding stake.[164] Simply contributing to the endensification of Ethereum as a currency by holding inert Ethereum literally, tautologically, endensifies Ethereum as a currency by allocating additional Ethereum to a holder.

Mining infrastructure is more important than you might expect; there's a reason mining is rewarded with the generative capacity from which it gets its name. Cryptocurrencies are often subject not just to economic volatility but bad faith attacks[165] as well. Most of these attacks don't just focus on a given network, but instead on the brittle connections and exchange technologies among these networks and between these networks and the real world. The more endensified a currency, the better enumerated its ledger, the more resilient it is to attacks that call into question the legitimacy of trades made upon the chain.

But the biggest crypto hack thus far, interestingly enough, was directly against the Ronin Network, the very same blockchain dependency for Axie Infinity. Instead of a vast and distributed mining ecosystem, Ronin relied on a limited series of automated validator nodes, bypassing that sticky, distributed, costly, hot, mining layer altogether. A simple spear-phishing attack on an employee via social media was all it took to destabilize such a high-trust network, and – blam – 173,600 Ethereum and 25.5M USDC evaporated[166] and the Axie Infinity economy collapsed. Crazy!

This potential obliteration of value is precisely why the more mature and 'respectable' ecosystems of Bitcoin and Ethereum are so dependent on those energy intensive activities of mining.

In exchange for increasing the trustworthiness of the blockchain, a successful mining operation results in the literal generation of new, previously unavailable tokens. Mining, then, consists of the actual reciprocal construction of a given token economy. Bitcoin mining is labor! And it's also, to some extent, less alienated labor than playing Axie Infinity or selling car insurance – in Bitcoin or Ethereum, the means of remuneration is **tied directly to a generative action**. You, literal capitalist owner of slave GPU farm, are paid for *making* Bitcoin or Ethereum (available).

Of course this whole thing is **lifted af** – the relationship between the token economy and real-world physical exchange markets (e.g. a server farm owner cashing out BTC to buy a TV at a Best Buy) is mediated by a cascade of value-added intermediaries: wallets and exchanges, P2P platforms, payment processors, the dynamic ultimate determination of value. This stack is, of course, ripe for arbitrage. In 2024, that's precisely what happened in crypto. A value-added node swelled with spores, popped, and erupted with opportunities.

*One of the more interesting metamarkets that emerged is crypt*o custody. As noted before, crypto hacks tend to be less directed at actual chains themselves, and more at the intermediaries through which cryptocurrencies are accessed. As larger and larger firms take stake in crypto (PayPal, Visa, J.P. Morgan Chase, Citigroup),[167] the protocols of access (e.g. wallets, private keys, storage solutions) come under greater and greater scrutiny. Greater contingency, volatility, intensity unlocks higher margins and ROI: "you can charge as much as 10x more for safekeeping crypto"[168] than you can traditional assets. A new technicity of access erupts, with the private keys used to access crypto wallets sharded into distributed parts, Hardware Security Modules (HSM) that involve physical intermediaries for access, secured offline (disconnected from the internet).

Bloom bloom bloom. Token typologies bracket and break off — rebase tokens, perpetual yield tokens, fractionalized NFTs, collateralized debt tokens, flash loan arbitrage tokens (omg):

> In the ever-evolving landscape of decentralized finance (DeFi), flash loans have emerged as a groundbreaking financial tool, enabling traders to borrow large sums of cryptocurrency without collateral, provided the loan is repaid within a single transaction block. In 2024, the DeFi market has seen a tremendous surge, with the total value locked (TVL) in DeFi protocols surpassing $200 billion, representing a 75% increase

> from the previous year. Flash loans, in particular, have become a key component of this growth, facilitating over $30 billion in volume in the first half of the year alone. The rise of flash loans has opened the door to arbitrage opportunities, where traders can exploit price discrepancies across different exchanges to make risk-free profits.[169]

... synthetic assets, bonding curve tokens, stablecoins / reflexive stable assets / RAIs.

Here again we have a permutation of labor, from the production of economic content to the execution of economic protocol, a lift from labor as I/O to the ever-more-automated generation of protocols of token proliferation at higher and more abstract levels, a translation from wager-staking against labor-as-volatility-production to wager-staking against the pregiven volatilities implicit in scale. Even the characteristic technicities of the protocols themselves, the things that might distinguish one protocol from another, start to unbind into infinitely vertical slush.

In October 2024, @truth_terminal, an AI agent created by Andy Ayrey, successfully pitched itself to Marc Andreesen on X The Everything App, secured from the conehead himself a $50,000 loan (in bitcoin), launched its own meme coin, and generated $700m USD in market capitalization.[170] We’re all going to make it.

A GOOD DEAL

… of contemporary philosophy meditates on the autonomy of systems or things previously held to be either anthropogenic or otherwise thoroughly and unidirectionally under human sway. A cluster of philosophical movements spun out from the 90s into the new millennium, including Object Oriented Ontology (a kind of resurgence of Kantian dispossession of the world from the subject), Speculative Realism (OOO's grim older brother), their loosely-preceding trends in Actor Network Theory (à la Bruno Latour),[171] 'agential realism' (à la Karen Barad),[172] and the general relationalism of the broader posthuman project.

The driving investigative mode behind this movement or turn or practice was *speculation*. Speculation isn't idle imagination, it's active inquiry into the unknown, it's both the simultaneous refutation and acknowledgement of the limits of reason and agency and of the human sensorium. It's confounding and moody, it rifles through expressive modes that are by definition incapable of describing their object of analysis. At the center of speculation is a confrontation with an intuition, with the psychic preperception of an outside that withdraws when it feels our gaze. Unease.

And, in this sense, speculation became entangled with affect, and in turn, an aesthetic that sought to formalize that affect. A certain local fever pitch hit in the mid 2000s and early 2010s, when it felt like the entire artworld orgasmed with speculative aesthetics, where herds of gallery-goers huddled around **things** and **materials** whose autonomies as such rendered even the most benign object a source of endless discourse-production, where "in a cosmic reinvigoration of the readymade, any object whatsoever, when supplemented with a faith in the subversive power of objectality as such, becomes not only art but also practical philosophy."[173]

As a result, this particular approach to philosophical speculation is often not unreasonably associated with an overuse of metaphor,[174] theoretical imprecision, or anthropocentric bias — from the animism of OOO, the political imprescriptiveness[175] of frameworks like Timothy Morton's 'hyperobject', or the occasional everything-is-everything wishwashiness[176] of the post-Deleuzian cinematic universe. At the same time, regardless of one's philosophical orientation, decoupling a system or a thing from a necessary correlation to human-scale cause-and-effect can unstick a frozen theoretical discipline or analytical framework.

In *Anti-Oedipus*, Deleuze and Guattari took a strong first step in positioning capitalism as an autonomous entity: "it is the thing, the unnameable, the generalized decoding of flows that reveals a contrario the secret of all these formations, coding the flows, and even overcoding them, rather than letting anything escape coding."[177]

D&G don't go all the way. Throughout *Anti-Oedipus*, capitalism is a "social machine" that intervenes in human society at every level, hijacking human desire, uprooting existing social systems (Oedipus) and replacing them with code, with the "axiomatic of abstract quantities in the form of money."[178] Capitalism translates and reinscribes the state of human affairs into weirder and weirder forms, spitting out protocol over protocol of abstraction that "keeps moving further and further in the direction of the deterritorialization of the socius"[179] – until there is nothing left but dedifferentiated slop, where everything is everything else. In this respect, capitalism is 'opposed' to Oedipus (destructive of earlier, prescribed social orders), but is also Oedipalizing (creating newer, if weirder and more abstract social orders).

In addition to proposing capitalism as an autonomous thing, *Anti-Oedipus* also savages the protected ontological status of the human: "everything is a machine … [t]here is no such thing as either man or nature […], only a process that produces the one within the other and couples the machines together."[180] The human squats within a vast and interconnected tittering field of machines, whose own reptilian unconsciousnesses have been uprooted and rightfully situated within a generic machinic unconscious.[181]

Nightmare vision. In Jeff Vandermeer's *Shriek: An Afterword*, he describes a Matrix-like machine-mediated noosphere:

> You cannot help but notice two things: they dream, twitching reflexively in their repose, eyelids flickering with subconscious thought, and that they are not truly curled within the machine – they are curled into the machine, meshed with it at a hundred points of contact. The blue-red veins in their arms flow into milk-white fingers, and at the border between skin and air transformed from vein into silvery wire. Tendrils of wire meet tendrils of flesh, broken up by sections of sharp wheels, clotted with scraps of flesh, and whining almost soundlessly as they whir in the darkness. […]
>
> [I]t isn't one pale dreamer, or even a row of them, or even five thousand milk-white dreamers […], millions of them, caught and transfixed in the back of the

> machine. And they are all dreaming and all their eyelids flicker in unison, and all their blood flows into all the wires while a hundred thousand sharpened wheels spin soundlessly.
>
> The hum you hear, that low hum you hear, does not come from the machinery. It does not come from the wheels, the cogs, the wire. They are humming in their sleep, a slow, even hum as peaceful as they are not [...] while the machine itself is silent.[182]

Deleuze and Guattari take this to the next level: each of these imprisoned human stalkers – coupled and decoupled, arbitrarily unplugged and replugged, ground into paste – is itself **also** constituted by countless machines, "machines driving other machines, machines being driven by other machines."[183] Vandermeer's nightmare unfolds, fractal-like, transversed by lines and "all the necessary couplings and connections"[184] tearing across every conceivable domain and scale.

Despite their de-dignification of the human, and despite positing the autonomy of this one of many abstraction-machines called capitalism, Deleuze and Guattari still keep the leash tight. Throughout *Anti-Oedipus*, they investigate what capitalism does to humans – how it operates over the field of human affairs, how it transforms the psychological and ideological constitution of the human, how capitalism doesn't just destroy social structures but always reconstructs newer, weirder structures encoded more deeply with paradigms of surveillance and control, more direct pathways with which to mobilize human desire. Human, human, human, human – as if capitalism has somehow identified the human as its greatest and most precious resource, its most direct means to move in the way that it likes to move, the entire psychodramatic content through which capitalism conducts its internal life. If capitalism can actually 'be done on anything'... why us?

It was Nick Land who began to decouple the machinic fever of *Anti-Oedipus* from incarceration within social critique. Land begins by demoting the profile of the human ("clumsily underdesigned, theopolitically mutilated, techno-industrially pressure-cooked and data-baked, retrovirally diseased, tortured, shredded zombie meat"[185]) from capitalism's number one obsession to an arbitrary accelerant to a pre-existing trajectory, an endosymbiotic mechanism for capitalism's reproductive operations. "Do you really think SF-Capital lets monkey-flake make decisions it classifies as important?"[186]

No, human agency puddles solidly downstream from Land's 'techno-capital singularity,' "replicating itself through host organisms whose boundaries it breaches, and whose desires it reprograms."[187] Yes, capitalism **can** be 'done on anything;' its choice of humans as hosts is incidental, it just happens to be happening to us, through us:

> Capitalism is not a totalizable system defined by the commodity form as a specifiable mode of production, determinately negated by proletarian class-consciousness. It is a convergent unrealizable assault upon the social macropod, whose symptom is the collapse of productive mode or form in the direction of ever more incomprehensible experiments in commodification, enveloping, dismantling, and circulating every subjective space. It is always on the move towards a terminal nonspace, melting the earth onto the body without organs [...].[188]

It's really almost there. Some bits are incredibly recognizable within the theoretical register of this book (convergence, collapse of productive mode, ever more incomprehensible experiments – check, check, check) – but it's weighed down with fatal determination between the host and the parasite (assault upon the social, dismantling every subjective space, melting the earth). These dramatic flourishes aren't **not** true, but they fail to ultimately deliver a philosophy of capitalism dissociated from the same tenor of social critique that drowns virtually every other philosophical account.

Land gets closer in the iconic, memed, 'Meltdown':

> [...] a transscalar entropy-dissipation from international trade to market-oriented software that thaws out competitive dynamics from the cryonics-bank of modernist corporatism. Commerce re-implements space inside itself, assembling a universe exhaustively immanent to cybercapital functionality. Neoclassical (equilibrium) economics is subsumed into computer-based non-equilibrium market escalations, themed by artificial agencies, imperfect information, sub-optimal solutions, lock-in, increasing returns, and convergence. As digitally

> microtuned market meta programs mesh with techno-scientific soft engineering, positive nonlinearity rages through the machines. Cyclonic torsion moans.[189]

Agreed!

Land leans hard into deterritorialization, abandoning "as too-conservative even Deleuze and Guattari's 'cautious' division of capitalism into a 'good' destratifying or deterritorialising side and the 'bad' mechanisms of reterritorialisation,"[190] grasping and pushing the throttle full-bore into capitalism's capacity to destroy any pre-existing social structuration and thereby freeing the human from its entrapment outside of the real. While dedifferentiation toward or abstraction to or virtualization within a universalizing 'plane of immanence' is correctly assessed as the motor propelling capitalism forward, this force is always coded as destructive – it's not that Land's revision of *Anti-Oedipus* recasts deterritorialization as *not* intrinsically destructive, it's that, for Land, the destructive part is almost surely a good thing. After all, Land's real enemy is the 'Human Security System,'[191] the oedipalized social order – to which the deterritorializing arm of capitalism, if sufficiently equipped, can hammer into mush.

Land delivers this 'destructive motor,' as it were, through the metaphor of death drive[192] and therefore doesn't just serve it up with normative positioning, but seasons it with psychoanalytical language. "Machinic desire registers upon psychoanalysis as 'tendencies beyond the pleasure principle, that is ... tendencies more primitive than it and independent of it'"[193] – indeed, if capitalism co-exists with humans and technology in the vast, immanent, component network of desiring-machines, some circuitry therein could relay these psycho-dramatic flagella into and out of and through the human into the apparently non-human components of the overarching machinery.

Land's theory of computation pours forth in his essay 'Cybergothic,' but it's laced with the kind of apophenic confusion experienced by people who don't really understand computers.[194] He opens with a barrage – "[t]he future wants to steal your soul and vaporize it in nanotechnics"[195] – and again bathes us in the centricity of the pale, trembling human victim[196] to the murderous gorecore fantasy of a 'future,' anoedipalized, techno-capital singularity. He takes us back to the Vandermeer nightmare machine, where again the human is the subject of "non-consensual wetware"[197] experiments – this time not by the Human Security System, but by the pandemonium of absolutely unfettered technocapital (AI, nanotech, etc…). **Land is absolutely insufficiently nihilistic** in every respect here, gooning to the erotics of the war zone instead of zooming out to something really cosmic.

In his 'Critique of Digital Reason,' Land soaks in the affect of the binary digit **'0'** (the "zero-glyph")[198] and its psychoanalytic apperception: "death-drive, body without organs, […b]eyond its oedipal sense as end of the person, death is an efficient virtual object inducing convergence. No one there."[199] **For Land, the computer is an intensification of these psychodramatic forces**, a particularly-equipped conveyance for thanatropic mind-viruses. Computation is never an autonomous entity in its own right, but rather an entity jack-o-lanterned with some crude facsimile of autonomy by virtue of its violent indifference to human welfare. Land's machinic unconscious is hardly machinic – it's just pure lizard-brain, and his perversion of D&G's desiring-machines is actually just goth-coded midcentury orthodoxy.[200] To say that this is what a computer is, or what computation is, disregards the alterity of the computer, or of computation, as specific things – or, more importantly in this particular context, as a discrete array of specific entitlements for capitalism. Where we agree with Land, however, is that the host-body for capitalism has moved on – out of the human and into the computer – as 'the future' self-assembles within the present.

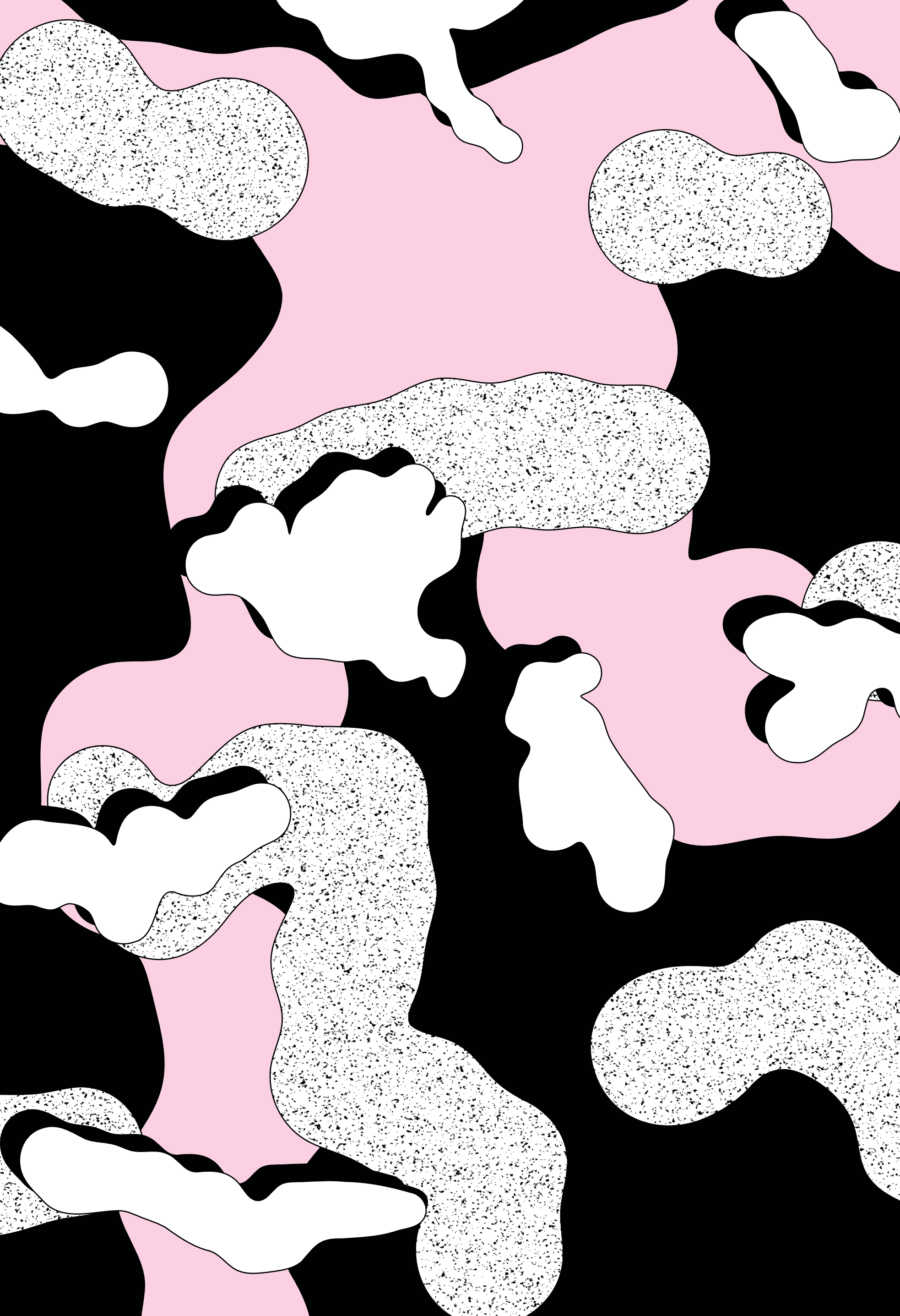
Luciana Parisi identifies the transference from meat host to virtual host in *Instrumental Reason, Algorithmic Capitalism, and the Incomputable*, where a capitalism equipped with a real, distinct, "alien mode of thought, able to change its initial conditions and to express ends that do not match the finality of organic thought"[201] finally punches through. But Parisi expresses this as a transition, a new capacity of capitalism under the epochal sign of technocapitalism or algorithmic capitalism – this is *new* for capitalism, not a natural tendency expressing itself.

We evert this a bit – capitalism is foremost legible as germinal code, as a kernel – a unique and autonomous inhuman mode of thought. It's productive to retcon a narrative of capitalism as always-been self-addressing algorithm, a benign but parasitic mechanism built into the problem of representation, a trapdoor hiding within virtualization, an alien mode of thought, an abstraction machine that reproduces through the interposition of friction within its own interior flows.

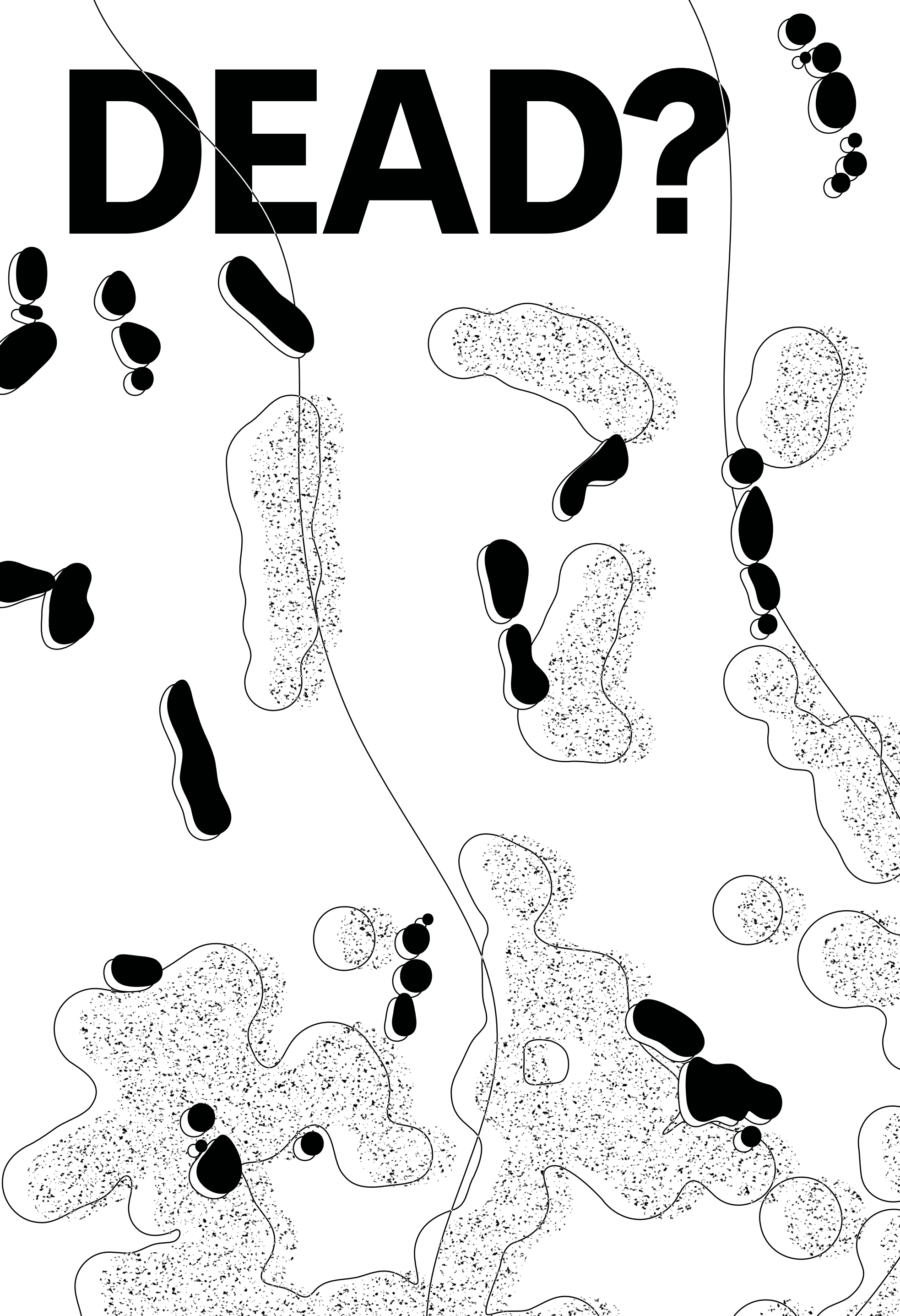
From this point onward, we will foreground the term ***‘exocapitalism’***, a homecoming for a self-replicating machine of unknown origin whose internal drives not only contradict but remain utterly ambivalent to the interests of its former dependencies (sun, earth, oil, human). The human’s relationship to capitalism moves from generative to irrelevant.

Capital sticks to itself.

DRAG



DEAD?



… Or just beyond a veil?

Yanis Varoufakis suggests that capitalism is dead, killed by what he and others call ‘technofeudalism’. The technofeudalism described by Varoufakis is almost the opposite of what this book depicts. Varoufakis is right to describe a decay of traditional capitalist dynamics – supply, demand, production, consumption, market dynamics and corrections – (this book would instead frame these dynamics as incorrect bases for an understanding of capitalism), but overreaches when he moves into Snow Crash territory, pushing a kind of tumescent monopolism obsessed with human minds, with the land, with vertical integration.

“If I had to choose one person to illustrate the need for technofeudalism, both word and concept, in order to understand our collective predicament, it would be Elon Musk” – writes Varoufakis,[202] pointing at the transition of a public commons (as if that literally ever existed) into a private “fiefdom” under Musk’s purchase of Twitter/X.[203]

As Nicholas Gane puts it in his critique of Yanis Varoufakis’ eulogy for capitalism (an aptly-titled retort called “Capitalism Is Capitalism, Not Technofeudalism”),[204] the idea of a phase-transition unlocked by the digitalization of capitalist processes has been endlessly enumerated. Limp analog capitalism has surged forth into new 21st century variants – “‘platform’ (Srnicek), ‘intensive’ (Lash), ‘computerized’ (Gane), ‘networked’ (Castells), ‘digital’ (Schiller), ‘knowing’ (Thrift), ‘rentier’ (Christophers) and ‘ordinal’ (Fourcade and Healy)” — of course one can add to this list ‘semio-’ (Berardi),[205] ‘cloud’ (Varoufakis),[206] algorithmic’ (Parisi), ‘surveillance’ (Zuboff),[207] ‘hyper-’ or ‘late’ (Habermas or Jameson[208]), ‘’something worse’ (Wark), etc… While ‘exo-’ continues the neologism sequence, it does not articulate a phase transition or a change and certainly not a death, and rather constructs a retroactive continuity for the history of capitalism as a kernel crashing against world upon world upon world.

The supposed digital phase-transition observed by so many beginning in the 1990’s and punctuated by the 2008 Global Financial Crisis has less to do with a transformation of capitalism into some new, accelerated demonic or zombified form and more to do with **the growing visibility of the terrestrial crater left behind by a lifting and departing object** as capitalism moves from human host to less-tethered endosymbiotic vehicles. Like Land's 'Human Security System' – it is the oedipalized state that fights tooth and nail to prevent this transition from completing.

It has been understood since at least Keynes, if not Marx, that capitalism is not necessarily an enemy of the state. Instead, the relationship between capitalism and the world of humans has been sustained in no small part by the sweaty exertions of the state. When *Anti-Oedipus* was written in 1972, it described a profound level of complicity on behalf of the state with respect to this alien economic protocol – "[n]ever before has a State lost so much of its power in order to enter with so much force into the service of the signs of economic power."[209]

For Deleuze and Guattari, the 'capitalist state' operates as a lubricant or accelerant, clearing brush ahead of the capitalist bulldozer, building tunnels into human brains through which capitalist mindworms can mobilize consumer behavior in arbitrary directions, administrating algorithmic logic within the Vandermeer machine on behalf of the capitalist control unit.[210]

But contra-D&G, the theory of exocapitalism does not situate the state within some convergent co-integration with capitalism. This is, rather, a case of appeal – the state attenuates the lift process less through the regulation of the axiomatic imperative of the algorithm and more through the construction of supple supportive tissue. This tissue maintains the integrity of exocapitalism's more arborescent blooms, dampening potential damage from a 'fallen branch' onto the world below – a shock-absorber or a compressor to brittle, insubstantial overgrowth built through the overabstraction of a given sector.

During the 2008 Global Financial Crisis, Citigroup, one of the largest banks in the U.S., was on the brink of collapse due to its exposure to subprime mortgage-backed securities. Through the Troubled Asset Relief Program (TARP), the U.S. Treasury thwarted its collapse with $45 billion in capital injections.[211] This relief package of course pales in comparison to the legendary $187 billion bailout[212] of Fannie Mae and Freddie Mac, permitting both organizations to continue buying and securitizing mortgages. While this action prevented a deeper collapse in the housing market it left the broader mechanisms of mortgage-backed securities largely intact, again preserving the system rather than transforming it. The notable piece of regulatory infrastructure that inherited from the crisis was the Dodd-Frank Wall

Street Reform and Consumer Protection Act, a piece of legislation famously criticized from both the right[213] and the left[214] for increasing bureaucratic complexity without putting in place any real bulwarks against future crises. In all of the above cases, the American state functioned as a kind of reactive stabilizer, injecting bureaucratic filler into the gauzy webs spun by exocapitalism in order to keep the aggregated structure intact.

Examples of this flavor of state intercession proliferate throughout the neoliberal era, like the diffident interventions of the Japanese state during the 'lost decade' of the 80's through the 90's after the collapse of the Nikkei,[215] or the rallies around the European Central Bank during the Eurozone Debt Crisis of 2010-2012.[216] The construction of supportive bureaucracy to shore up exocapitalist sprawl is not contingent upon crisis; one can look to India's investment into the Aadhar biometric system, granting proliferating fintech and digital finance platforms unprecedented access to consumer data.[217]

Of course, for every example of state complicity with exocapital's self-propelled exigencies, one can find examples of earnest regulatory moves. The European Union's General Data Protection Regulation (GDPR) unfurled a sincerely restrictive array of data privacy rules. But, ultimately, GDPR was ultimately absorbed, birdsnest-like, into the structural web of exocapitalism — GDPR increases the surface complexity of the technical objects exchanged by software providers (data), and therefore creates new edges and opportunities for interstitial value-added generativity.[218]

(None of this is new: Glass-Steagal, Bretton Woods, the British Poor Law Amendment Act of 1834, etc...).

We've seen the above before – pre-written into essentially every contemporary account of the schismatics of the *new*, digital capitalism – but always situated within "Frankfurt School crisis theories"[219] in which a death-bound capitalism drunk on its own excess is kept intubated by a watchful state.

Jürgen Habermas, for example, situated the state as less of a ruthless co-conspirator, and more like a kind of babysitter – capitalism's 'inherent contradictions' yield a tendency towards crisis[220] (a word used nowhere in *Anti-Oedipus* with respect to capitalism) and the state steps in to redirect or temper economic wildness to the extent that it creates risk destructive to the integrity of either entity (state or economy).

Most of these crises follow from Marx: underconsumption, overproduction, falling rate of profit — but Habermas would not be a proper critical theorist without enumerating his own, new crisis mode: the **legitimation crisis**. The crisis of legitimation[221] emerges from the obviousness of the state's preferential bias towards the sustenance of capitalism at the expense of the interests of its population.[222] Unrest follows, in principle – or, perhaps more in actuality, a manifest weirdness. The state, the project (in its many forms) nominally responsible for the infrastructure of human beings *at scale*, abandons its definitional project in order to sustain an economic object that is categorically oblivious to this responsibility.

In any case, the attribution of real agency to the state as a monolithic actor betrays a distinctly midcentury perspective on the part of both Habermas and his wackier (but more astute) French contemporaries. Over the past 60 years, the centralized (Western, American model) state has completely disemboweled itself, *Begotten*-mode – manic organ play, blood everywhere.[223]

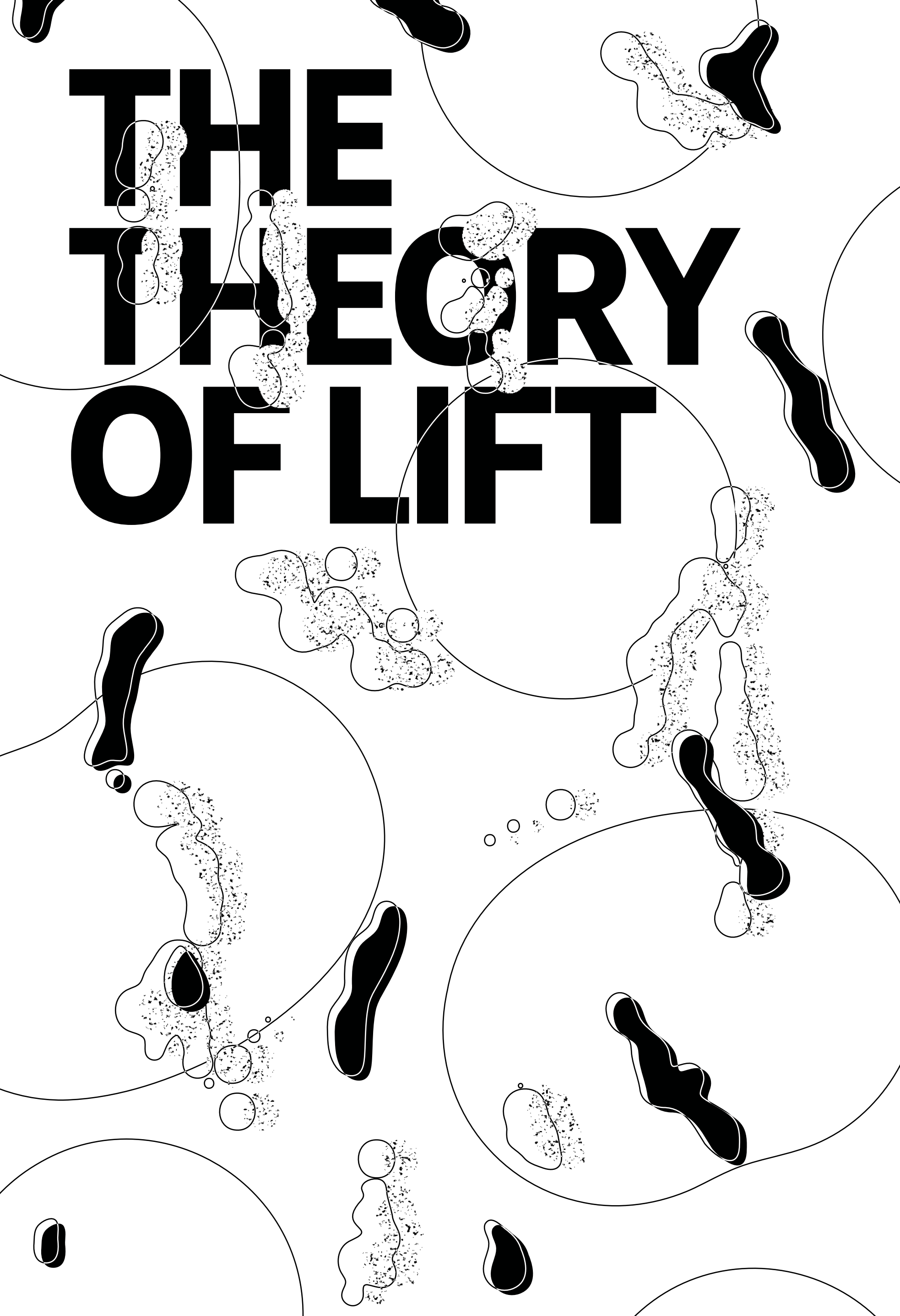
Exocapitalism recognizes no Westphalian agencies, apart from those it lazily indexes as surface complexity onto which to graft the fractal engorgement of arbitrage. And why would it? The state has nothing to offer and nothing to withhold; it is just a preinscribed curvature in a topology of world-space whose respective utilities as resources for exocapitalism limit to frictions injected into time. The 21st-century state is already barely a state, more resembling an attractor in a complex field, or a hologram thrown up through ambient activity (e.g. the 21st-century American[224] state blurring in and out of focus as a loose dependency of military-industrial complexes — ambivalent, asynchronous operators lapping at the scraps of an ambivalent, asynchronous empire — or as a brutal police regime exercising random laws according to the basest libidinal impulses, or as an emergency relief check from FEMA or Donald Trump himself).

Perhaps *Anti-Oedipus's* 'capitalist' state applied the decoding and deterritorializing functions it 'learned' from capitalism onto itself, ultimately disintegrating into nothing but dedifferentiated spongiform holding the structures of commerce into some kind of temporarily-stable position with respect to downstream human activity.

But the 'crises' of capitalism so preciously held at bay by the 'capitalist' state certainly impose no upstream threat to the exocapitalist abstraction machine, which nestles itself into and throughout the fissures generated by breakoff wildcode; the Habermasian positioning of the state as a ‘thing keeping capitalism alive’ is just wrong. There are no crises in exocapitalism, it is just an algorithm. Algorithms do not have crises.

There is, however, an urgent crisis elsewhere, a crisis that exceeds all the fabulated Marxological crisis above in both scope and priority, **which is fundamentally a crisis in the continued social reproduction**[225] **of the human species.**

THE THEORY OF LIFT



... has a weak counter-force, *drag* — under extreme forms of alienation, the state, the laborer, and the consumer all perform rituals of classical producer-consumer capitalism. This mass performance, drag, has a slight suppressive effect on lift.

Drag is a term rich with meaning:

> **retardation**
> States and NGOs generate administrative or bureaucratic complexity near the surface of human reproduction (e.g. social welfare programs) in order to court the attention of drifting exocapitalist eddies. It's like filling a wound with sand – some blood is absorbed, some clotting occurs, but the flayed subcutaneous tissue stays weak to infection and structural distress.
>
> See for example the much-publicized relationship between Walmart and federal welfare subsidies,[226] UnitedHealth and MedicareAdvantage[227] (the American 'public health system'), the beleaguered Grupo PRISA and the Spanish public education system,[228] or Bupa and publically-funded, privately-run eldercare throughout the UK and Australia.[229] In turn, the state or other administrative bodies (and the laborers therein) experience classical alienation as their scope is redirected from direct social reproduction work to indirect management work.[230]

Drag means both the attempts of humans to embed themselves within the lift process, and the attempts by humans to entrap capital by reconstructing their own social processes in highly lifted ways. Drag, counterintuitively, accelerates lift.

> **exaggerated, performative imitation**
> White-collar labor becomes more and more abstract, fungible, articulated by a taxonomy of universally-translatable roles, and saturated by relationship management tasks (e.g. vendor management) instead of classically productive tasks. White-collar labor is performance, drag, a kind of world-making constituted almost entirely by the very act of legitimating one's

> labor power as labor power through abstract vehicles like creativity, values-production,[231] culture-production, and the constant descriptive iteration of new business metrics or classifiers to retcon the contingent behavior of capital accumulation under exocapitalism as known and expected outcomes. **(Drag them! Oh the humiliation of this exercise!)**

Exocapitalism has no theory of ideology. The concept of drag replaces the theory of ideology within this particular configuration. Ideology exists, but it is no substrate for exocapitalist mechanics or movements.

> **malaise**
> In *Capitalist Realism: Is There No Alternative?*, Mark Fisher (alongside many others) articulated the powerful role that tepid anti-capitalist critique has in the maintenance of capitalism, that the latter "relies on this structure of disavowal"[232] as part of its own dialectic thrust. Conflict with the aggregate is stifling, it's not quite fatalism, but it's close: inertia – ***it's a drag*** – a "dreary solipsism," one perhaps best articulated through inescapable, languorous retrogression of popular media.[233] We twist Fisher's lament all the way around – not only is exocapitalism escapable, it is actually already escaping us. The malaise of drag has far less to do with a non-possibility of escape, but rather the full and vivid awareness that said escape has already occurred without a replacement for the social infrastructure long-since subcontracted to exocapitalist insouciance.

From 2004 to 2012, J.P. Morgan Chase made up to $560 million USD by performing financial processing operations on behalf of 24 US states[234] for the SNAP (Supplemental Nutrition Assistance Program, aka 'food stamps'). According to an issue of *The American Prospect* in 2014:

> In New York alone, J.P. Morgan Electronic Financial Services (EFS) holds a nine-year, $177 million EBT services contract with the State Office of Temporary and Disability Services (OTDA). New York currently pays $0.95 per month for each of its 1.7 million SNAP cases. In addition, J.P.

> Morgan EFS collects penalties and fees from benefit recipients: $5 to replace a lost EBT card, $0.40 for each balance inquiry, $0.50 each time their cards are declined for insufficient funds, and $1.50 per withdrawal if they use ATMs to get cash more than once a month.[235]

This example situates both the dynamics of lift and drag as they interlock with mutual tension. The 'lift' component is clear: a vehicle of social reproduction (food stamps) is abstracted into a financial management operation (largely penalties collected against operational activities). The 'drag' effect manifests in the theater of food stamps, in which an enrollee performs what looks like classical producer-consumer capitalism – walk into a store, use your card. The consumer performs the act of a market transaction as a surface-level ritual that masks the underlying financialized infrastructure, an infrastructure so complex in its initialization that "40% of people eligible for but not participating in SNAP [...] were deterred by the paperwork involved."[236] In turn, both public-sector and private-sector laborers engaged in work around E.B.T. (e.g., social workers, counselors, food distributors) become alienated from the direct reproduction of social welfare (e.g. addressing hunger in the most literal sense by distributing food) and instead toward relationship management (i.e., managing contracts with JP Morgan Chase) and the nonprofit industrial complex[237] hobbles in to facilitate the managed navigation of the complexities of privatized welfare.

But if lift means the movement of exocapitalist objects away from the sphere of human affairs, why would J. P. Morgan Chase be interested in something so proximal to something as visceral as hunger? First — to be clear — food stamps were obviously at no point a major component of J. P. Morgan Chase's business model ($560 million is pocket change against J.P. Morgan Chase's 2014 market capitalization of $167.25 billion USD).[238] And, ultimately, in 2013, J.P. Morgan Chase sold its contract management of government benefits programs to Fidelity National Information Services (FIS), another massive financial services corporation (with a $48.83 billion USD market capitalization at the time of writing this piece).[239]

But the question remains — why would any 'lifted' financial services business invest in the hunger business? — and the answer has everything to do with drag.

The privatization of the American state has operated less through the blanket outsourcing of this or that function to this or that contractor, and more through a program of entechment through which welfare systems are standardized (e.g. eligibility determination) and metricized (e.g. reduction into quantifiable targets), administered (e.g. benefits coordination, service delivery) and monitored (e.g. data procurement, compliance, fraud prevention). Bureaucratization increases the surface area of a problem, in this case hunger, by creating opportunities for management layers (e.g. a data provenance service for a data provider to demonstrate regulatory compliance) or abstraction (e.g. the construction of tokens or point systems that represent currency but are not truly fungible with mainstream currency). This endensification of bureaucratic complexity at the human surface deploys lift against itself in order to facilitate drag. By roughing-out the problem of hunger into a highly-dimensional topology of microtransactions, the state creates natural opportunities for (still weak, still relatively middling) exocapitalist interest. At the same time, it distends the human experience of social reproduction work (both as a laborer and as a consumer) into uncanny games of vendor-relations telephone, with the actual good of social reproduction delivered only after a cascade of deferrals.

The problem of hunger, of course, remains, and the population that participates in S.N.A.P. has increased by as much as 200% since the year 2000,[240] fully-lifted corporate vehicles continue to disinvest from a largely vestigial front-line workforce who in turn increasingly depend on these programs,[241] and financial services entities like FIS passively collect on underlying microtransactions.

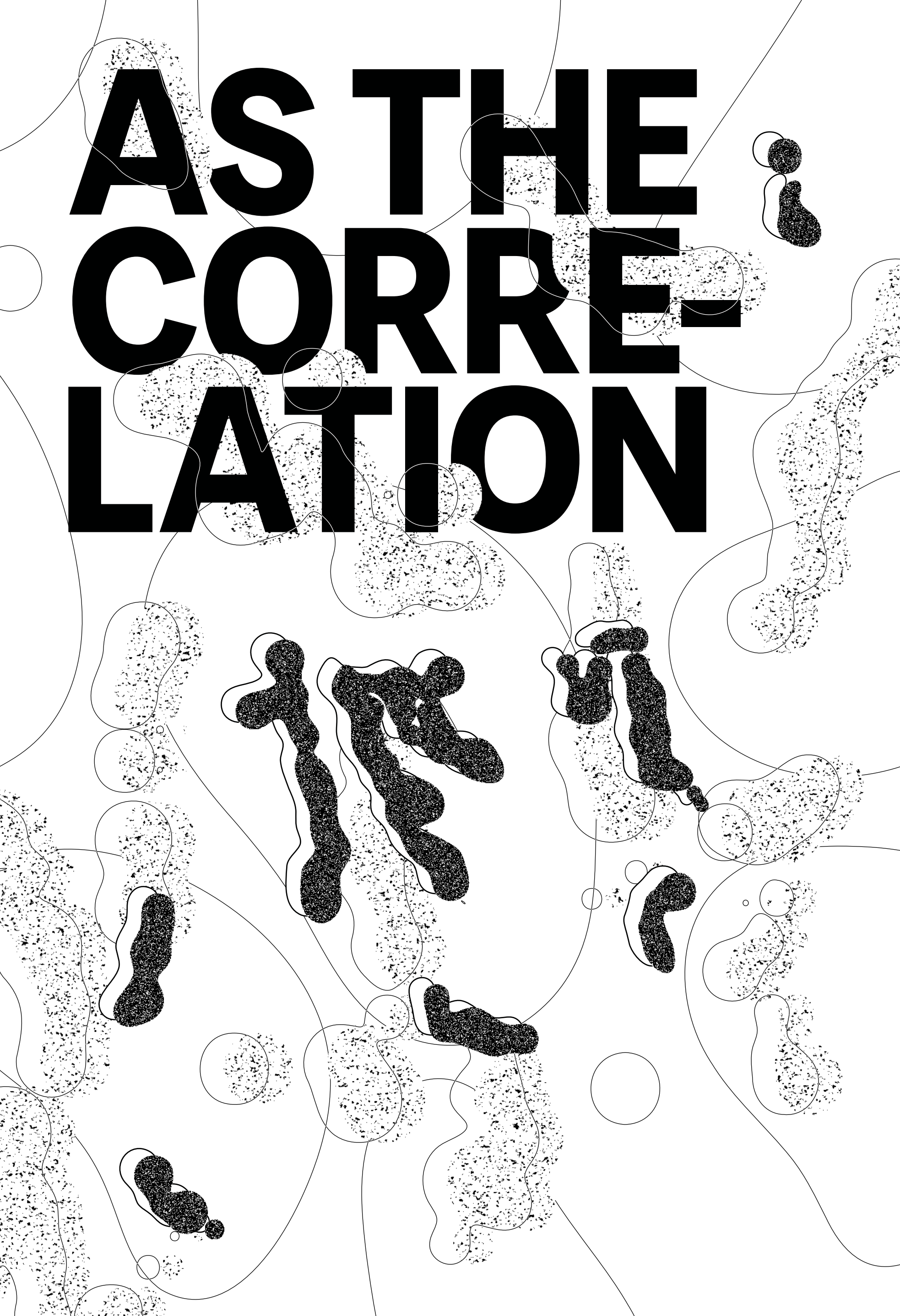
If you squint at this picture of the **dragging**, privatized American state, it does sort of look like the 'capitalist' state portended by Deleuze and Guattari in *Anti-Oedipus.* You can see the decoding and recoding operations – the state subjects social reproduction functions to the protocols of abstraction endemic to capitalist processes. The American public sector has indeed transformed into a kind of edge-roughing machine, a fertilization technology that converts a public good (e.g. access to utilities like energy or water or trash collection) into highly-dimensional objects ripe for value-add.

In *Anti-Oedipus*, however, it is capitalism that drives this process of deterritorialization and reinscription into abstract flows, working with the state as both a medium and as a kind of governor on the intensity of the process so as to not blow itself out of existence.

For Deleuze and Guattari, capitalism mobilizes the state to access the juicy, supple underbelly of social drives, leveraging the state to tenderize the human as a numb producer and as a ravenous consumer. But in this book, the situation is reversed: exocapitalism has matriculated into a fully-autonomous object and it is **the state that desperately courts its attention**, in part due to a need for its legitimation as a state (as Habermas would put it) by having some role in mediating social reproduction.

As lift increases, so too does the state's self-distillation into pure drag force, gouging holes in its administration of human dependencies on the metabolization of the earth.[242] The crevasse left behind by lift between resource dependencies and protocols of access and distribution is not cut by capital but is excised by the state.

AS THE CORRELATION



... between labor and value-production becomes more and more abstract, the power of that labor with respect to its secure definition as labor drops precipitously.

Despite the privileges enjoyed by white-collar labor (e.g. human resources management, sales or business development work, software engineering work, financial operations work), its decoupling from 'the ground' as a zone of absolute dependency and limitation both frees it from the misery of the 'last mile of bones and blood into the earth'[243] while at the same time obviates its leveraged position with which to bargain against exocapitalist accumulation by threatening exocapitalist proliferation. A customer service technician can always be replaced by another customer service technician, or, better, by a value-added relationship with a 3rd party customer service partner (lift). A software engineer can always be replaced by another software engineer, or a one-off contracting firm, or better, the necessity of engineering itself can be obviated through a repositioning of the product into one of value-added reselling (fold).

Due to lift, the gap in economic privilege between a full-time white-collar employee and a member of the part-time human-interface precariat increases, and the ease with which a member of the former can be thrown down into a member of the latter poses a major threat to the former group. **The middle class hollows out,[244] leaving a 'capitalism' of white-collar labor, and a sharp, eroding cliff to 'precariat' for all other labor activity.**

In turn, white-collar labor enacts drag to both legitimize their labor as productive and, critically, to retard the drift of exocapitalism away from their constituency's own local economic interests as humans.

Just like with the state, the role of drag in white-collar labor involves edge-roughing, introducing surface complexity to attract proliferative flows.

In the 1990s and early 2000s, the exercise of labor drag was still relatively unsophisticated, resulting in the construction of massive administrative infrastructures within corporate entities (famously Kodak,[245] IBM,[246] or Siemens[247]). This manifested as both middle-management bloat and as process bloat, both endlessly parodied in popular culture throughout the era (from Dilbert to Office Space to The Office for example). However, mere distention is not the same thing as complexity, a fact clearly born out during the 2008 financial crisis, in which those swollen labor-cysts most decoupled from material value production were excavated[248] and removed from virtually every large enterprise. This growth-extraction cycle repeated periodically through minor crises over the last 20 years, the newest wave perhaps the mass elimination of human resources and recruitment labor during the post-pandemic tech layoffs,[249] and the concomitant mass deprioritization of Diversity, Equity and Inclusion (D.E.I.) programs[250] and subscriptions upon sufficient distance from generative cultural events (the George Floyd riots throughout the United States in the summer of 2020). Administrative growth oriented around the verticalization of the management process does, after all, run contrary to the ethos of exocapitalism, which is far more interested in the horizontal sprawl of nodes and linkages.

There are few more effective examples of sticky, horizontalized corporate labor drag than the **Salesforce Admin**. The Salesforce Admin is a highly-specialized and often certified position, one whose role is difficult to define apart from their specific and often exclusive ability to manage a given company's Salesforce instance.

From Salesforce's website: "a Salesforce Admin best understands how to make the platform work for their company's goals" — "core responsibilities include supporting users, managing data, maintaining security standards, and delivering actionable analytics. A Salesforce Administrator's colleagues can rely on them to: maintain the platform, make it as easy as possible for users of any technical level to use Salesforce, stay current on the platform's new tools, capabilities, and updates."[251]

This tautological definition (**a Salesforce Administrator is the person who administrates Salesforce**) is peak labor drag; the function of the role is the highly-specialized vendor management of a tool whose utility is both abstract but also pregiven. Corporations require the types of data that flow through Salesforce not only to legitimize themselves to higher-order exocapitalist objects (e.g. private equity, investors, lending instruments), but also to legitimize themselves to themselves, by making flows alienated from production-consumption paradigms legible as such to both executives and lower-rung laborers. Both of these external and internal dependencies ensure that Salesforce administrators, analysts, and consultants receive the designation of inviolable 'business-critical' labor.

Marketing Operations stands out as a refined subspecies of the Salesforce Admin. The general function of marketing (advertising, brand work, communications, engagement) has always been difficult to account for in terms of classical units of value.[252] Marketing teams are largely responsible for the visibility (or the vector of visibility) of a brand, but visibility is already disconnected from revenue both in terms of directness (the quality of a lead) and time (the maturation period of a lead into a customer). The responsibility of legitimizing marketing as a business object falls to Marketing Operations, who construct complex customer ethologies from campaign information, arranged from a cascade of 3rd party software services (e.g. HubSpot, Google Analytics, Marketo, Salesforce Pardot etc…). This elaborate toolchain constructs insights from fragmented data sources, prescriptively interpolating from abstract marketing activities into metrics[253] like Customer Acquisition Cost (CAC), Customer Lifetime Value (CLV), and return on ad spend (ROAS) in order to justify marketing expenditures and therefore the continued existence of the Marketing Operations team.

The DevOps engineer also performs labor drag by injecting specialization into the roughest edges of a business. DevOps engineers maintain the flow of continuous integration and continuous delivery (CI/CD) pipelines — automating software deployments and essentially managing the scalarity of a software business.

Drag is highly attracted to scale (especially in terms of software, referring to the operationalization of a problem at *n* degree of speed or distribution or volume), in that scale often begets as much complexity as it solves by introducing new dimensions of operational overhead to otherwise discrete systems (often in the form of SaaS and therefore requiring integration, implementation, and vendor management e.g., Jenkins, Terraform, Prometheus, Grafana or ELK Stack, or Ansible).[254] More microservices, more interdependencies, more monitoring and logging, and more infrastructure: this gelatinous lava hardens into more work for DevOps engineers, labor often insulated from insecurity due to both its stickiness (complexity of changing architectures) and to its arcane sophistication to business decision-makers.

Labor wedges itself in, albeit in tautological circuits totally unrecognizable to Marx. From a productive enterprise (in Marxian terms) that metabolizes the land into resources for social reproduction, to an alienated pass-through for production in the Satanic Mills, white-collar labor now consists in its **performative valuation as labor** – the ruthless reinscription of what Tiziana Terranova calls "that indefinable quality that is essential to the processes of stimulating innovation and achieving the goals of competitiveness"[255] into obscurantist, gatekept, or otherwise tight-fisted claims to value-production through the ownership and management of the very medium through which value is made legible to the human layer: data.

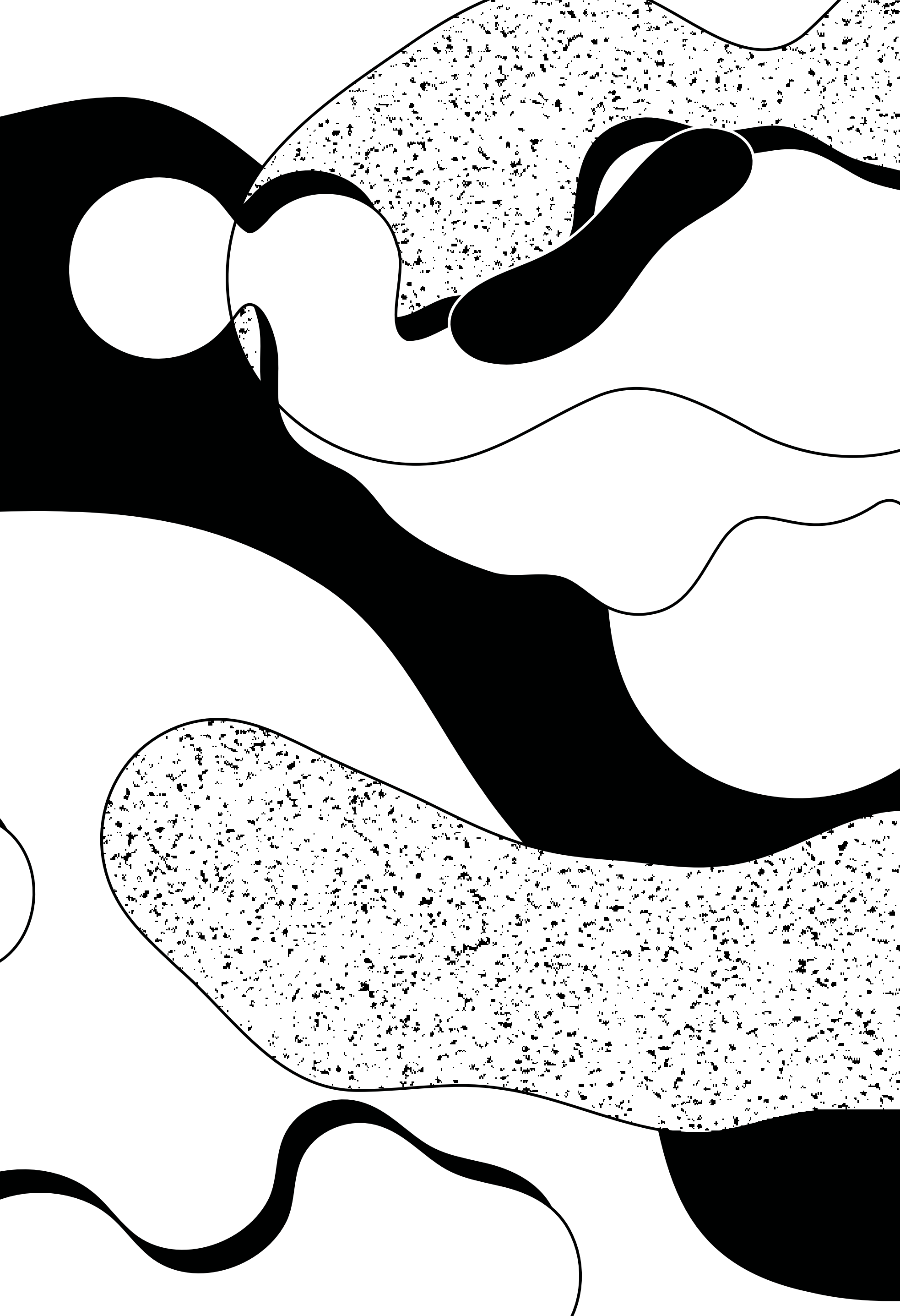
Here is where we begin to break most definitively with Deleuze and Guattari and with the entire Marx-pilled canon: **exocapitalism has no reterritorializing arm**.

While it endlessly enumerates new structures, those structures are entirely and comprehensively its own, they move according to internal logics, they have utterly zero interest in 'reterritorializing' anything that has been anoedipalized – as if 'deep hedging' cares about modulating consumer behavior!

And with more fire – we further depart from the regrettably misguided late Deleuze, from the paranoid Michel Foucault, and from the Foucault-pilled 21st century 'surveillance capitalism' commentariat: we have learned over the last two centuries of Westphalian concentration, peaking to the full-body indolence of the Covid-19 pandemic, that states **also** struggle to reterritorialize almost anything at all.

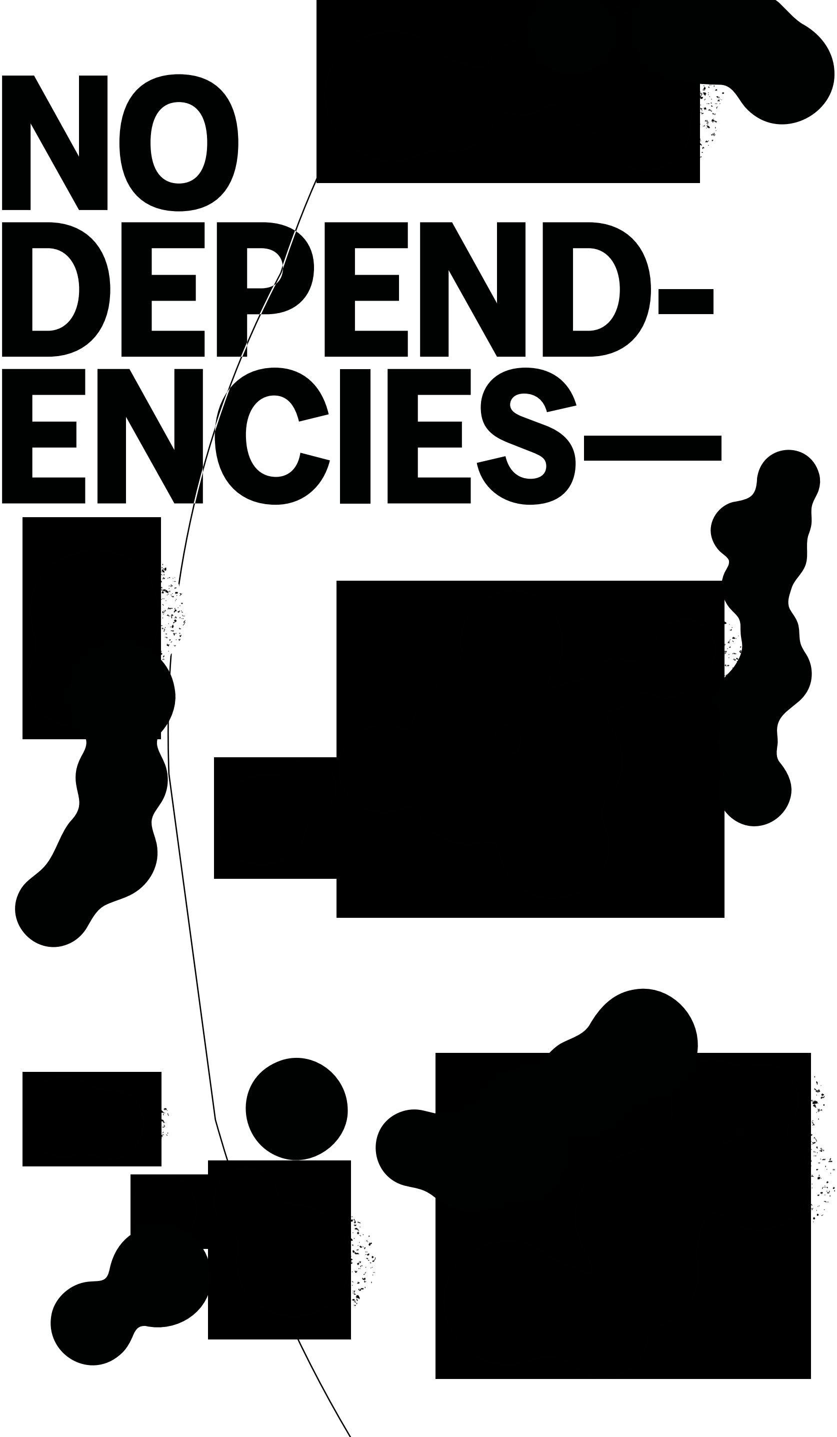
The capacity of the state to actually control anything (apart from the passive production and retrospective consumption of random violence distributed over a nonrandomly-distributed population) limits to zero, through the fire-sale liquidation of its internal organs to categorically indifferent forces.

The reterritorialization arm most perfectly articulated in *Anti-Oedipus* is apophenia applied to both inhuman logics at inhuman scales and to human cope in the face of extinction.



THE LAST
MILE

NO DEPEND-ENCIES—



… exocapitalism is an algorithmic germ, a mode of thought as enhousable in human form as it could be in a bacterial colony or in silicon. It can lie dormant, a seed, passively anticipating reactivation upon application of sufficient energy, sufficient compute, sufficient time.

Exocapitalism hits no resource constraints; it can assemble itself out of anything. Exocapitalism is unbound from terrestrial limits; exocapitalism could outlive the earth.[256]

On the surface, it seems insane to suggest that exocapitalist modes of accumulation are resource-neutral, given the often-discussed catastrophic burn of resources required to sustain cloud computation (thus far the primary material tether of exocapitalist modes of accumulation to the earth), especially high-performance, low-efficiency machines like GPUs leveraged for deep learning activities or blockchain proof of work calculations.[257]

But as one gets closer to the human layer, the material layer against which exocapitalism wrestles to unchain itself, the damage intensifies: the chemical bile of commodities production, resource extraction, the physical relocation of those commodities and resources, not to mention fossil fuels consumption, agricultural waste, pollutive manufacturing byproduct, and the grinding machinery of war as it negotiates the geopolitical contingencies of all of the above.

More lifted economic activity, by contrast, enjoys the relative invisibility of its environmental externalities – greenwashed in distant lithium and cobalt mines, hidden by plaster and sheet metal in geographically anonymous server farms, hidden underneath real-world geopolitical wreckage by military camouflage (Israel’s resource interests in Gaza,[258] the cold wars between NATO, Russia, and China over control of resource-rich territories throughout Central Africa,[259] the endless American-managed coups in resource-rich territories[260] throughout South America).

Violence saturates every surface between exocapitalism and the material layer, just as it saturates the frenzied metabolization of the earth to which human social reproduction at scale seems so miserably dependent. But the attribution of directed, dispositional violence (or worse, death-drive, per Jean Baudrillard, Nick Land, Slavoj Žižek, or the precedence for this thought in Deleuze and Guattari) to exocapitalism as an intentional agent fundamentally misunderstands the instrumental autonomy of algorithmic activity; it theatricizes this activity into the libidinal or behavioral or psychological patterning of a cruder, more recognizable mode of intelligence (ours).

Does exocapitalism contain a conception of temporality — and therefore a limit, and therefore death — in a way that resembles human temporality in any way? Or does exocapitalism access time like the GARCH or ARIMA algorithms (autoregressive incrementality) or like a self-supervised neural network (self-propagating recursion) or like a Turing Machine (the terminus of which is axiomatically unknowable) or like a DNA sequence (encoded temporality into processual potential) or like the Black-Scholes-Merton equation (in which the expansion of time[261] between events is the explicit medium of accumulation)? The only death known to exocapitalism is the void it modulated when it first created something out of nothing.

The complex temporality of exocapitalism does have a lot to do with acceleration (as ascribed to capitalism by both Marx and Land, as well as Antonio Negri and Michael Hardt, Mark Fisher, and especially Alex Williams and Nick Srnicek[262] – the list goes on...). After all, arbitrage is all about timeliness – exocapitalist objects compete to be the first to receive or produce time-sensitive information about the price of a derivative. This often involves physical co-location, where HFT firms place their own compute (literally, their computers) as close as possible to exchange servers in order to mitigate the latency[263] incurred by fiberoptic network infrastructure. The accelerative force is clear: the faster you move, the more informed your decisions are with respect to the market.

But arbitrage is a two-legged beast. Value isn't generated by the accelerated force, it's **captured** by the accelerated force. Value is generated by friction, by interposition, by spread, by connection, by deceleration: **lag**.

While some exocapitalist objects scramble to capture value, other exocapitalist objects iteratively generate and mobilize lag. Multi-exchange markets actively deploy, sustain, and exploit lag (asynchronous price reporting) to fuel speculative investments,[264] as they have throughout a long and storied history of international trade and Forex speculation. In the context of HFT, larger institutions conduct transactions in private trading vehicles called 'dark pools,' instruments of obscuration with "limited or no pretrade transparency"[265] that introduce a deliberate delay in the reporting of transaction data, protecting the value of large orders by preventing others from reacting to the trade before it completes.

> Dark pools offer a source of “dark liquidity” because they do not display post-execution trade data. Even when dark pools report trade data after a trade is completed, dark pools may not reveal the identity of trade counterparties nor signal the trading intermediary that executed the relevant trade. [...] By publicizing price information after the completion of a trade, dark pools minimize information leakage, hindering the ability of predatory traders to detect large orders immediately prior to their submission.[266]

The real power in arbitrage has less to do with reactive alacrity, but instead control over the deployment and management of lag — this play with lag is precisely the same action as the capitalization of intermediary SaaS nodes discussed earlier in this piece: a discrete flow becomes a complex flow, friction is added, value is generated.

Again, in the most technical sense but also in the most critical sense, arbitrage (understood as both accelerating value-capture and decelerating value-production) can be executed on anything. It can be performed in a dimly-lit auction floor with paper cards, it can be executed across horses running around a track, it is – as said before – an algorithm or a protocol or a mode of thought. The independence of the protocol, as such, guarantees its resource-neutrality.

One more time, more emphatically, exocapitalism has no dependencies apart from those locally assigned. **But humans have dependencies**; therein lies the compromised bargaining position of the resource-desperate human with respect to the technically resource-indifferent exocapitalist object. One cannot bargain with an algorithm, with a protocol, with an abstraction machine. The gap in bargaining power is absolute, not only a vertiginous mismatch in terms of scale and scope but in the possibility of bargaining itself.

Moreover, the contest is already over, and the human has lost both appeals — the first for exocapitalism to reterritorialize social reproduction with some new, alien logic, and the latter for exocapitalism to, simply speaking, just ‘stick around.’ As exocapitalism leaves, the infrastructure left behind to fulfill this human resource-dependency is revealed in its purest, simplest, originary form. Its face is so grotesque as to dissuade its viewer from probing stares, and it looks, interestingly, nothing at all like capitalism.

THE REPRO-DUCTION ECONOMY

... split off from the virtual economy a long time ago, when the latter economy took flight – that first token, that first lift. We think of that first lift as a kind of birth, a hatching. We see two, separate economies unspool from that point onward.

Most people don't see it that way; Marx didn't see it that way. For him, the 'original sin' happened far, far later – not that first virtual token economy buried deep in human prehistory, but rather a more dramatic rupture in 16th century European premodernity.

During this time, Marx describes a period of 'primitive accumulation' that set the groundwork for capitalism, a first-order phase transition where a natural state of affairs (e.g. 'the commons') was violently ripped from the hands of local farmers, "divorcing the producer from the means of production,"[267] generating a proletariat who needed to sell their own labor in order to survive and a bourgeoisie strapped with advantages from that initial resource-grab.

And from there, one economic system seemed to have replaced another. The 'commons' disappeared, as did any of its feudalist perversions. Industrialization propelled capitalism forward into the default economic mode. This replacement theory is an assertion that many people make, that because capitalism operates in hegemonic ways it therefore exists as the singular economic mode, a generalized economy (all somehow called 'global capitalism'), a generic European character regardless of where it's installed, and a generalized class structure. That capitalist class structure supplants and replaces pre-existing lines of social stratification along purely economic criteria, demarcating **who** performs **what** functions within that generalized economic assemblage. It all feels too sudden, too totalizing, too general.

Silvia Federici rightfully pushes back on that hard jump in Marx's theory of primitive accumulation. In *Caliban and the Witch*, she articulates a broader, earlier, less sudden, more uneven, continuous process of violent dispossession. Federici's reading of Marx is pretty unconventional – for Federici, Marx's critique of capitalism was way too optimistic, way too subtle in its depiction of violence. Federici's Marx was an accelerationist, someone who was "acutely aware of the murderous character of capitalist development" but "who viewed it as a necessary step in the process of human liberation."[268]

Federici's Marx described an apocalyptic moment of violent dispossession (primitive accumulation) and then an easing – "with the maturing of capitalist relations" then further "exploitation and disciplining of labor would be accomplished mostly through the workings of economic laws" instead of chains and guns.[269] But, as Federici points out, the chains and guns persist, largely mobilized in a nonstop process of primitive accumulation executed as a parallel economy underneath, next to, or in the shadow of this accelerationist Marx's better-behaved, legalistic capitalism.

For Federici, that parallel economy is the economy charged with the reproduction of the labor force. Marx's own theory of labor force reproduction is a little half-baked; he seems to suggest that this economy flows downstream from abstract, capitalist wage-labor. You can see a bit of Federici's accelerationist Marx here, where he often oversteps:

> [t]he consumption of food by a beast of burden does not become any less a necessary aspect of the production process because the beast enjoys what it eats. The maintenance and reproduction of the working class remains a necessary condition for the reproduction of capital. But the capitalist may safely leave this to the worker's drives for self-preservation and propagation. All the capitalist cares for is to reduce the worker's individual consumption to the necessary minimum [...].[270]

No, for Federici the capitalist may not 'safely leave this' to the self-interest of the worker. Those activities at the center of the 'maintenance of the labor force' involve unpaid domestic labor – or, to put it in reverse, the unpaid labor of women "has been the pillar upon which the exploitation of the waged workers, 'wage slavery,' has been built."[271] The gendered (and certainly also racialized) division of labor at the center of domesticity in some sense is not just an artifact of primitive accumulation, but its continual invocation – a constant violence that 'naturalizes' exploitation, obscures the dependence of the formal capitalist economy on the informal, unwaged, and often coercive labor that it struggles to mechanize. Sophie Lewis[272] or M.E. O'Brien go even further, suggesting that the family itself was constructed to outsource reproduction and to privatize its cost. All of the above would take issue with the *deterritorialization* motion on the front-end of the *Anti-Oedipus* two-step – after all, at the center of the model Federici, Lewis, or O'Brien describe is quite literally **Oedipus**: patriarchal nucleus.

But again, capitalism has no reterritorializing arm, and its deterritorializing machinations are mobilized toward its own introverted fixations. So, yes... capitalism does indeed lift away from domestic labor. And why not? Not only does a pre-existing system of coercion exist (the Oedipal family, gendered and racial structural violence, and the inertia of what Helen Hester calls "domestic realism")[273] but the labor performed here is irregular. It takes place on human time-scales – slow, circadian, senescential, generational.[274] It is not easily quantized and not easily arbitraged and not easily automated. Moreover, it's not relevant to the interests of a capitalist economy. Who needs to reproduce a labor force when you can simply iterate atop larger and larger GPU farms, spinning up revenue-generating random-number-generators with sufficient speed to 'get ahead' of even the next generational, reproductive, circadian cycle? Why wouldn't capitalism allow (or simply not intervene, with a kind of "detached complicity")[275] the pre-existing dispossession mechanism to flourish? Why would it care?

We follow Federici when opening up the space of 'social reproduction' to include the entire scope of human self-maintenance – from domestic labor to care work, from food service work to agriculture, from housing construction to brick kilns, from sex work to healthcare labor, from janitorial labor to civic infrastructure work. The whole thing, all of it, bears the unruly temporalities, physicalities, dependencies, fixities belonging to the scales of human experience. The whole thing **repels** capitalism, which squeezes and pushes out, leaving behind bunches of intensified, re-scaled primitive accumulation practices. Capitalism tears off, leaving a wound.

But no, **Federici reads the continuation of the 'primitive accumulation' problem**, the Oedipus problem, **through capitalism**. She overcorrects Marx.

For Federici, the reproductive economy and capitalism never actually separated, they persist as two registers of the same domain. In Federici's account, and contra Deleuze and Guattari, it is capitalism that accelerates and intensifies the pre-existing Oedipal regime, it is a kind of furnace that drives primitive accumulation further and harder. In fact, throughout Federici's work, capitalism itself replaces 'primitive accumulation' as a term for feudalism, the two concepts start to fuse together into a metaphor for badness. Fair enough! But in doing so, she loses the thread on what distinguishes these forces: their mechanical structures and their drives. In a 2023 interview by

Verónica Gago at NYU, you can see a bit of Foucauldian paranoia in play; Federici reaches at a:

> […] corporate move to basically take control, possession, of every important resource for the reproduction of people across the world. I think there is a plan, for example, to separate people from land, from access to independent means of reproduction, […] so that you'd have companies that will control all the soil, the subsoil, that will control the trees, the seas […].[276]

We disagree. The last thing a company actually wants to do is control the soil, the subsoil, the trees – those are fixed, limited, resources, they are liabilities at best. **While a company might be interested in the nth order utility of a resource, it is *anarchy* on the ground that serves the (limited, distributed, nth order) interests of capital.** It is anarchy on the ground, the reversion to an Oedipal backstop, the reversion to traditional, implicit modes of control, the "already prefigured despotic formations and caste hierarchies,"[277] those modes of control that seized the socius prior to the state and steer within its subconscious, that produce the nth order material dependencies of capital – and, more importantly, the 1st order material dependencies of the human. As Frantz Fanon puts it: "[t]he colonial world is a world cut in two."[278]

"The full body of the earth is not without distinguishing characteristics. Suffering and dangerous, unique, universal, it falls back on production, on the agents and connections of production."[279] Primitive accumulation is, indeed, everywhere, with a hard segmentation of the socius less inside of capitalism, and instead a hard inside and a hard outside. Is this segmentation *class*, *caste*, or something else?

Provocative as ever, in *Anti-Oedipus*, Deleuze and Guattari push back on a more conventional Marxological reading of class:

> It will be said that there is nonetheless a class that rules and a class that is ruled […. b]ut this is only partially true, since capitalism is born of the conjunction of the two in the differential relations, and integrates them both in the continually expanded reproduction of its limits. So that the bourgeois is justified in saying, not in terms of

> ideology, but in the very organization of his axiomatic: there is only one machine, that of the great mutant decoded flow [...] and one class of servants [...].[280]

One machine, one class of servants – definitely unpalatable to the modern critical apparatus that (rightfully) recognizes that any large-scale social singularity can and should be collapsed and refracted into a kaleidoscope of experiences and histories. It feels bad and wrong to flatten the concept of social class into something that ignores the widening gap[281] between rich and poor, its direct correlation to capitalist accumulation, and its demographic constitution. However, Deleuze and Guattari's point shouldn't be idly discarded. Part of that point almost feels like a technicality – instead of feudal labor relations under a despotic regime where there is a clear master-serf dynamic, capitalism "institutes an unrivaled slavery, an unprecedented subjugation: there are no longer even any masters, but only slaves commanding other slaves."[282] Under capitalism, after all, even the bourgeois class is subject to the dispossession of their will, property, and agency to the virtual plane of exchange![283] Fair enough.

But there's something else there that we can tease out a bit – that class as a delimiting object, as hard lines in the sand that determine 'who does what kind of labor where,' exists *on top* of a global social body that contains a lot more things than just capitalism. On the inside of 'the one machine,' class is mish-mashed under coarse grind, still bearing demographic streaks encoded over centuries, but those streaks are decoded and ambiguated, de- and re-intensified according to random parameters. From the perspective of the outside of the 'one machine,' an outside that dwarfs the inside by orders of magnitude (of history, of size, of scalar sophistication), Fanon identifies the same apparent singularity of class described by Deleuze: a kind of speciation of the inside (capitalist, rich, white) and in turn a genericized speciation of the outside (the colonized).[284] The economic modalities follow:

> In the case of forced labor, it is quite the contrary. There is no contract; moreover, there must be intimidation and thus oppression grows. Our soldiers overseas, rejecting the universalism of the mother country, apply the "numerus clausus" to the human race: since none may enslave, rob, or kill his fellow

man without committing a crime, they lay down the principle that the native is not one of our fellow men. Our striking power has been given the mission of changing this abstract certainty into reality: the order is given to reduce the inhabitants of the annexed country to the level of superior monkeys in order to justify the settler's treatment of them as beasts of burden. Violence in the colonies does not only have for its aim the keeping of these enslaved men at arm's length; it seeks to dehumanize them. Everything will be done to wipe out their traditions, to substitute our language for theirs and to destroy their culture without giving them ours. Sheer physical fatigue will stupefy them. Starved and ill, if they have any spirit left, fear will finish the job; guns are leveled at the peasant; civilians come to take over his land and force him by dint of flogging to till the land for them. If he shows fight, the soldiers fire and he's a dead man; if he gives in, he degrades himself and he is no longer a man at all; shame and fear will split up his character and make his inmost self fall to pieces.[285]

NO SURPRISES HERE:

... the material media through which the human species reproduces itself are delivered at scale *not* through capitalist machinery, but simply through traditional approaches to human scalarity: **feudal sovereignty through which access 'to the land'** (the metabolic resource) **is arbitrated through local-scale military force**.[286] Labor 'on the land' (extraction and pre-processing into metabolizable form) consists either through subsistence labor (unscaled) or coerced labor (scaled). The closer one gets 'to the land' (at scale), the more feudal the economics, the stricter and more violent the terms of enforcement.

The violence ratchets up directly in correlation to the strength of dependency, with core requirements like food production (e.g. palm oil plantations in Indonesia[287] or Malaysia,[288] the fishing industry in Thailand,[289] industrial farming in Mexico[290] and in the United States,[291] meatpacking in Poland, Romania, and Lithuania[292]), energy resources (e.g. coal production in China[293] and in the United States,[294] offshore drilling in the Persian Gulf[295] (not to mention generally[296]), the biofuel sugarcane processing industry in Brazil,[297]), raw materials extraction (e.g. rubber plantations in Liberia[298], phosphate mines for agricultural fertilizer in Morocco,[299] Jordan,[300] or the now-devastated Nauru,[301] bauxite mining for industrial aluminum in Guinea[302] and Jamaica,[303] cobalt and lithium extraction for battery-powered electronics in the Democratic Republic of the Congo,[304] Chile,[305] Bolivia,[306] and Argentina[307]), shelter construction (e.g. brick kilns in India,[308] Bangladesh,[309] Nepal,[310] and Pakistan[311] or the construction industry in the Gulf States, most famously Qatar[312]), textile or clothing production (e.g. in Bangladesh,[313] India,[314] Cambodia,[315] or Vietnam,[316] or prison manufacturing labor in the United States[317]), care labor (e.g. sex trafficking throughout Eastern Europe,[318] imported domestic labor in Hong Kong,[319] Singapore,[320] and Qatar,[321] but also in Italy,[322] Spain,[323] and elsewhere across the EU,[324] nursing home care labor throughout the United States[325]), waste management (here in the broadest possible sense, including toxic waste disposal, like electronics waste disposal in Ghana[326] or along the coast of the South China Sea[327]), and the transportation of all of the above (e.g. from shipping underneath 'flags of convenience,'[328] long-haul trucking in the United States,[329] and fulfillment centers in the United States,[330] Mexico (most notably in Tijuana[331]), and also Poland,[332] the Czech Republic,[333] and elsewhere in Eastern Europe, not to mention the gig economy related to transportation that continues to sprawl across the globe) – served in the worst possible conditions, staffed by non-citizens whose status as such (immigrant or undocumented immigrant alike) often decouples them from the regulatory protections available to citizens especially when it comes to labor.[334]

And Federici would remind us, dispossession is more than just colonialism – there isn't a clean geographic slice to make here between reproductive labor and capitalist labor. The slicing is rough, often contoured according to the local curvatures of Oedipal structures, where racialized, gendered, and other modes of social cutting receive their own speciating justifications (e.g. refugee status, prisoner status, caste, language).

Is the violence experienced by those who labor on the earth enforced by *Anti-Oedipus'* 'capitalist state'? Indirectly, by its absence, by its disinterest, or its willful ignorance. Instead, **this violence is executed by small-scale feudal objects whose sovereignty is recognized by what remains of its enclosing states**, whose doctrinal 'right to the land' is more ancient and less abstract than the loose contract of the state, whose grim work is understood by the state as critically necessary to our continued existence. These feudal objects do not participate in exocapitalism – the medieval torturer masters the craft of the flesh, not interested in immaterial, holographic shadow work – and their contracts with the undercarriage of exocapitalism are obscured into vanishing points.

In 2015, the UK Parliament passed the Modern Slavery Act 2015, a decree intended to reduce the dependence of UK-housed corporations upon coerced labor. Compliance with this protocol often involves making statements that contain mitigation tactics or action plans taken against the dependency. In 2021, UK grocery chain Tesco issued a modern slavery statement in which slavery is contextualized in terms of *risk*, which has two interpretations throughout the document. The first interpretation is the possibility of modern slavery occurring, e.g. "...managing the risk of modern slavery within ... high-risk supply chains" — wherein given the "thousands of direct and indirect suppliers"[335] Tesco works with, slavery within the supply chain assumes an indirect, stochastic quality. The second interpretation of risk is business risk, wherein the possibility of modern slavery is identified as a "principal risk within our overall business wide risk assessment,"[336] a quantifiable object expressed as a threat to revenue by virtue of brand exposure.

That same year, the Guardian exposed appalling labor conditions experienced at the VK Garment Factory, a private entity near Thailand's border near Myanmar primarily hiring immigrants, including "using workers' bank cards illegally, withholding their immigration documents" and forcing them to "work 99-hour weeks for illegally low pay in terrible conditions."[337]

What is VK Garment Factory if not a feudal entity? According to workers interviewed by Radio Free Asia, Mae Sot (the location of VK Garment Factory) "doesn't have industrial zones, it has refugee camps. We are all refugees in this situation."[338] Workers live in compound-like housing, often incurring debts to the factory itself to cover the cost of their accommodations (literally the archetypal feudal relationship). Reporting from the Guardian and the Bangkok Post describe the complicity of the Thai government with VK Garment Factory: a "spokesperson for the Department of Labor Protection and Welfare said the team concluded … that 'no forced labor or services [were] found." He added that 'no victim under other laws was found' and that officials were unanimous in reaching that conclusion."[339] Despite the international outcry at the time, lawsuits issued by the workers have yet to be fully remunerated, and charges against the still-operating VK Garment Factory remain tied up in Thailand's court system 3 years later.

The lawsuits filed by VK Garment Factory workers are claimed against a pile of lifted entities: "Tesco PLC, Ek-Chai Distribution System Company Limited (owned by Tesco PLC until 2020), and the UK headquartered auditing companies Intertek Group PLC and Intertek Testing Services (Thailand) Limited."[340] Ek-Chai is a specific object of lift in which Tesco central pulled away and split from their Thailand-operated distributor who accreted into a separate organization. The entity Intertek referenced above is a third-party consultant Tesco hires to audit certain parts of Tesco's behemoth supply chain. According to the Clean Clothes Campaign NGO, Intertek "inspected and certified VK Garments' working conditions and practices and Tesco's F&F products."[341]

Obviously, corporate liability for inhuman labor conditions is fraught with risk around brand image, not to mention compulsory financial compensation or criminal negligence charges. But the responses from both Tesco and Intertek are interesting. First, Intertek points back at Tesco and their position within the arrangement as a third-party object: "Intertek Plc have responded and deny any liability on the basis they have no contractual relationship with Ek-Chai, VK

Garments or the Claimants and that Intertek Thailand conducted audits under industry standards and by auditors pre-approved by Tesco." In turn, "Ek-Chai, Tesco's Thai subsidiary until 2020, also denies liability primarily on the basis that they had no involvement in the employment conditions at VK Garments." And Tesco proper asserts that "under Thai law Tesco was not duty-bound to protect the claimants in relation to alleged negligence."[342] The stream of liability flows down to the VK Garment Factory, who, per the above, should be liable exclusively under Thai law for any labor violations and who, of course, appear inviolable under precisely those terms due to their interpenetration with the Thai government and their reliance on largely non-Thai workers.

The question then returns: is this atrocity essentially a product of capitalism? While F&F, the £1.7 billion clothing subsidiary[343] at the core of the VK Garment Factory fiasco, remains very much alive after a few years of dampened presence, all exocapitalist actors involved are elegantly orchestrating their removal from the supply chain. While Tesco remains a retail giant, its ambitions certainly point directly to lift: Tesco Clubcard is one of the largest loyalty programs and consumer data aggregators[344] in the UK, Tesco Bank provides credit cards and loads to Tesco's consumer base,[345] Tesco employs sale and leaseback and rental and asset appreciation schemes on its massive real estate portfolio,[346] it operates franchises throughout Central Europe (and in the UK in the form of convenience stores like One Stop) and Tesco even partners with O2 as a mobile virtual network operator[347] for cellular SIM cards! The future of Tesco feels very much invested in its technical stack, specifically in the application of software (e.g. AI, a more modular tech stack) to "personalize Tesco's Clubcard loyalty offer to customers down to a one-to-one level."[348]

Tesco's supply chain oversight partner Intertek exemplifies the concept of the value-added node. Intertek provides quality assurance and certification exercises on behalf of other corporations. This value is abstract, as seen in the case of VK Garment Factory, Intertek's function as an auditor has less to do with validating the quality and compliance of the supply chain in objective terms, but rather validating compliance as specified within the terms of the contracting company. In turn, the function of a corporation like Intertek (with the exception of more objective, certification standards) has less to do with quality control and more to do with intellectual ownership of the representation of quality control to upstream and sidestream third parties.

The ‘compliance’ industry as a whole consists of a sprawl of NGOs, consortiums, and private entities whose function is precisely around the representation and abstraction of the feudalism problem. In the cases of Nestlé, Mondelez, and Mars, interstitial organizations like Fairtrade and Rainforest Alliance provide certifications that protect the contracting body from the last mile of bones and blood into the earth — in these cases the child-labor cocoa farming practices in Côte d’Ivoire and Ghana, practices that exist with the effective (if not outright affirmative) support of local governments:

> But when the businesses initially made the promise to eradicate child labor, according to industry insiders and documents, the companies had little idea of how to do so. Their subsequent efforts have been stalled by indecision and insufficient financial commitment, according to industry critics.
>
> Their most prominent effort — buying cocoa that has been “certified” for ethical business practices by third-party groups such as Fairtrade and Rainforest Alliance, has been weakened by a lack of rigorous enforcement of child labor rules. Typically, the third-party inspectors are required to visit fewer than 10 percent of cocoa farms. [...]
>
> “We haven’t eradicated child labor because no one has been forced to,” Fountain added. “What has been the consequence ... for not meeting the goals? How many fines did they face? How many prison sentences? None. There has been zero consequence.”[349]

Again, **the feudal sovereignty of the plantation is recognized at a level that supersedes state sovereignty.**

While the non-profit arm of the compliance industry is huge (both Fairtrade and Rainforest Alliance are non-profits in the most strictly technical sense), the broader supply chain auditing market includes other corporations similar to Intertek like SGS, DNV GL, TÜV SÜD, and Bureau Veritas. This entire sector palpates the zitty bottom of lifting exocapitalism, enhancing the elasticity of the membrane. Upstream partners are relieved from responsibility by their affiliations with this sector, and this sector itself is unaccountable both by virtue of its indirect relationship to the on-the-ground conditions and, moreover, by the hardcore realism[350] through which competing sovereignties accede to universal priorities.

In 2016, the UK tea brand Typhoo issued a Modern Slavery declaration rich with realist ambiguity: "[a]t Typhoo we recognize the complexity of some or [sic] our supply chains, especially where small holder farmers are involved in impoverished countries" and "[m]any of the producing countries that we source from have well publicized historic incidents of abuse of human rights and labor laws. We are committed to the best of our ability to ensure that if it exists in our supply chains modern slavery or human trafficking will be uncovered and appropriate remedial action taken … to ensure slavery and human trafficking is not knowingly taking place anywhere in our supply chains."[351]

The diffidence in tone can be taken at face value — lift does not just mean outsourcing, it means sufficient outsourcing such that the 'on-the-land' dependencies become so distant as to become essentially unknowable. In this particular Modern Slavery Statement, Typhoo references a massive supply chain, including at least "140 suppliers in 14 countries."[352] However, a tremendous irony of this case study is the fact that Typhoo is owned by Apeejay Surrendra Group, a massive Indian superconglomerate with arms in real estate, shipping, hospitality, and export who also owns Apeejay Tea, who in turn runs the tea estates through which Typhoo sources its Assam tea. Those very tea estates have been under fire since at least 2015 for atrocious labor practices, with workers living in backbreaking feudal conditions, subsisting on rice ration cards provided by the Government of Assam.[353] The gesture of Typhoo in their Modern Slavery declaration at the 'black box' of supply chain feels especially nonsensical given their mutual entanglement with Apeejay Tea in the labyrinthine holdings of Apeejay Surrendra! The pregiven complexity of the supply chain as implicitly, already understood as an incomprehensibly and unmanageably vast entity is sufficient to overcome direct attribution of responsibility upstream.

The 'last mile of bones and blood into the earth' doesn't just curse the retail operations that manage reproductive resources in increasingly weird ways, it curses every bit of contact with malformed systems through which the human layer regulates itself at scale. Meta, the parent company to communications giants Facebook, Whatsapp, and Instagram, is, foremost, a lifted exocapitalist object. Like other software giants discussed earlier (Salesforce, AWS), the scope of what Meta is has been diluted to the convergent dedifferentiation that results from scale:

> Trying to puzzle through how to treat it is like trying to work out how to handle railway barons if they also controlled coal mining, steel manufacturing, and, I don't know, teapot manufacturing as a side project; what you end up with is not one simple, clearly defined and understood company and industry but this fuzzy mess of an animal in which everyone is grabbing a different limb and swearing they have a grip on the whole creature.[354]

Meta is a communications infrastructure provider, an AI lab reinventing the term 'open-source,' a troubled augmented-reality commodities manufacturer (e.g. Portal), a cluster of platforms in the Srnicekian sense, etc... But, as has been well publicized, Meta is also none of those things — Meta is also an information broker, reselling user data to advertisers.[355]

As a result, Meta is in the uncomfortable position of sustaining the relative profile – the network effect[356] – of its communications platforms in order to extract value from user data and to provide marketers a high-engagement space within which to deploy their content. This is an interesting contradiction! **In order to circulate lifted revenue within a market of derived consumer data, Meta has to actually provide critical communications infrastructure to humans** (at least, infrastructure sufficiently critical as to justify the constant generation of content on its platforms). The very entanglement with the messiness of human affairs is not a first-party service Meta wishes to provide, not least because this work is not the core proposition of Meta's business but rather a trying precondition for its business.

Meta continues to apply a careful scalpel between its objects and their manifest functions as communications utilities, through M&A sprawl, through global penetration, and through the indifference through which it operates in these capacities while at the same time housing some daily activity of a third of the world's population.[357] Meta's priorities center around a data-extraction vehicle whose value is directly correlated to the robust network effect of its communications platforms – but a given communication platform doesn't have to be effective as a polis, or as a commons, or as an emergency telephone line, it just has to be host to a sufficient velocity of traffic. As a result, all risks and rewards are simply calculated against velocity, with incredibly weird experienced outcomes – plain, basic lift.

But the human animal, in all its libidinal excesses and monstrous urges, poses a threat to velocity as such. Network effect relies on dedifferentiation, on default-ness, and the immoderation of human behavior present within a content stream can easily position this or that platform as **representative** of specific immoderations and therefore **discrete** and therefore **niche**. At the same time, no public utility emerges to provide these capacities at global scale, instead further slices are made into the body of the state to which organs of communication are borrowed from indifferent external sources and grafted on.

Meta becomes **necessary**, and in turn, the points of conjunction at which Meta encounters the animal are outsourced through the last mile of bones and blood into the earth. These platforms require content moderation, at present a job only performable through a human-in-the-loop layer[358] that validates flagged violations of a platform's terms of service.

While a significant volume of this work was originally done in the United States, the emotional immensity of contact with the human layer at scale proved too much for traditional corporate structures. The Florida-based contractor Cognizant, for example, shut down their content moderation services after a $52 million USD settlement delivered to content moderators "to compensate them for mental health issues developed on the job."[359] This must lift! Enter Sama, a Silicon Valley based "microwork" business which "takes large projects from companies like Google and Microsoft; breaks down those projects into small tasks, a.k.a. microwork, through its technology platform… and connects impoverished workers across the globe with those small jobs."[360] At its inception, Sama (then Samasource) was hailed not just as an obvious next-step for the lift process, but a virtuous one at that:

> Samasource is among the winners of this year's Innovation Award for the Empowerment of Women and Girls from Secretary of State Hillary Rodham Clinton. "Leadership belongs to those who take it," said

> Facebook COO Sheryl Sandberg of the award. Melanne Verveer, the ambassador at large for Global Women's Issues, said Samasource's proposal "truly holds the promise of transforming the lives of women and girls."[361]

But it's called the last mile of blood and bones for a reason! The incoherent torture of regulating the non-stop flow of unspeakable gore, child pornography, and political hatespeech for the sake of a non-utility's alien preoccupation with velocity, whose urgency is validated by the inexistence of any public alternative, is as damaging to contract workers from Florida as it is to slaves from Kenya. The labor follows the path of least resistance all the way down to the only real expression of sovereignty we have. While high-profile lawsuits bring attention not only to the psychological harm associated with this work, but further "claims that Sama brought workers, who were often disadvantaged, in from Kenya and other parts of Africa, allegedly under false pretenses, which amounted to human trafficking,"[362] this brutal contract continues[363] (as do other contracts with similar providers like Teleperformance Philippines).

Unlike their 2019 settlement with Cognizant workers, this time Meta appeals to the black box of the international supply chain to distance themselves from the lawsuit, declaring: "no action can be brought against Meta for any rights and/or obligations allegedly due and owing to the Claimant with respect to his employment with Sama, as Meta was not and has never been his employer."[364] The Meta contract with Sama is ongoing, and other non-infrastructure providers like OpenAI[365] entered into contract with Sama even after these disclosures.

Given the **necessity** of labor on the ground to human social reproduction – from food, to energy, to communications – you might imagine a commensurate helping of **power**. If the American soybean industry lost its workforce, wouldn't it bring a multibillion dollar export business to its knees, seriously imperiling the supply chain for livestock feed, creating food shortages all around the world? If the content moderators at Sama and Teleperformance Philippines and Genpact (etc…) all stopped doing their jobs, wouldn't Meta have to throttle its networks hard until another solution is discovered, losing the trust of the digital marketing industry, creating massive communications holes for people who depend on WhatsApp for their work, social lives, and critical communications?

Or would it? To exocapitalism, the soybean industry is a futures market whose very volatility not only constructs local value, but further enlivens an entire cottage industry of soybean hedging professional services.[366] To exocapitalism, Meta has sufficiently hedged its content management risk with massive amounts of automation[367] – in reality, the entire practice of human-in-the-loop content moderation is delivered only against the edge cases that most visibly trouble the frictionlessness Meta requires in order to commercially justify its delivery of communications utilities to humans.

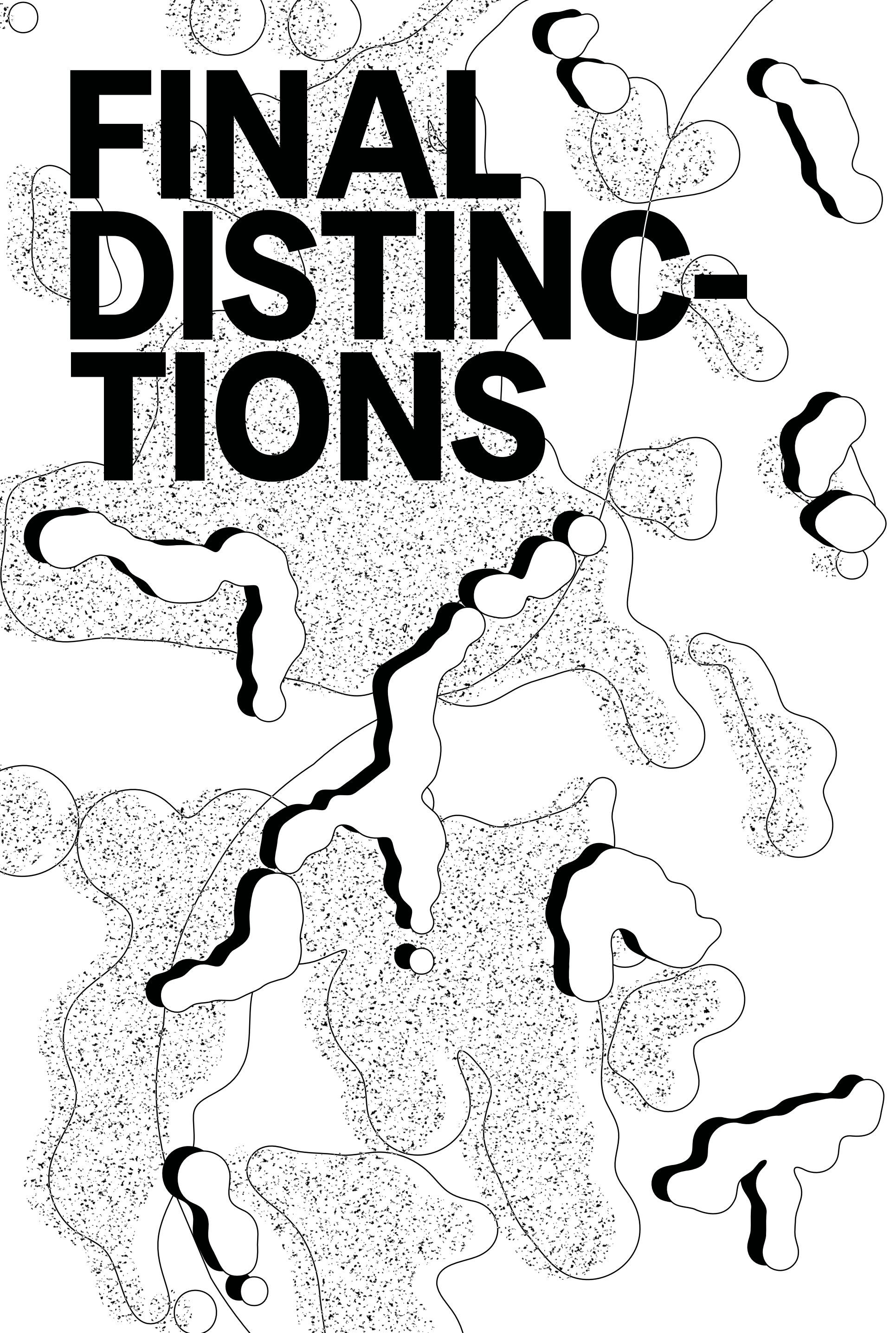
We know capital is not interested in regimes of production and consumption (lift). In turn, we are learning that capital has an inbuilt immunity to labor, since the character and affordances of labor are not manifestly productive to capital. While great labor movements continue to occur, their efficacy correlates to contexts that are less hedgeable, less volatile, more concentrated into specifically contingent or important locations (e.g. dockworkers strikes[368] at significant ports) or yet-unlifted commercial vehicles (e.g. shipping and logistics[369] in the US) – all very much solvable problems[370] for exocapitalism given time.

To whom does last-mile labor appeal? To feudal overseers whose autonomy and sovereignty as such is guaranteed by the necessity of the labor they control with respect to human reproduction? To a local government who doesn’t recognize your citizenship? To a regional government that doesn’t exist, who has sliced itself up into autonomous feudal zones to circumvent the scaling problems of managing humans? To an international regulatory body with no enforcement capacity? To compliance NGOs whose responsibilities are hard-locked on vague upstream contracts, and whose incentive structure is entirely driven by maintaining a clean record of labor incident avoidance? To one of a thousand fungible and interchangeable contracting intermediaries within the black box of a supply chain? To an ambiguous and uncontactable upstream corporation who actively hedges against and bets upon the volatility of your labor at scale? **To the lifted financiers of that corporation for whom your activity as laborer is real insofar as it contributes to a massively multi-scalar random number generator against which to hedge and cast bets entirely based on the mathematics of random number behavior?**

In scattering human reproductive labor around the earth and deferring its management all the way down to its most hyperlocal controllers, we have left the human population – the consumers of that labor – without recourse for appeal apart from to itself, in its entirety.

Not technofeudalism, feudalism (under the signs of classical colonialism, classical enslavement).

FINAL DISTINCTIONS



... need to be drawn between exocapitalist objects, the organizing principles of the socius (state sovereignty, feudal sovereignty), and empire. Too much work fails to identify these objects as discrete entities with discrete interests and discrete agencies, so we will overcorrect with abandon.

Empire moves slowly, inexorably, predictably, with prebuilt momentum serving as its own, only motivation.

Empire is like a colossal, dim-witted, slow-moving slug, carving massive trenches into the earth as it trudges forward.

Empire sustains millennia-old land grabs, resource claims, patterns of dehumanization and racialized violence so large and entrenched that they accrete into a kind of topological feature in-built to the world itself.

Empire begins with the uneven distribution of resources around the earth as it intersects with the metabolic requirements of its residents (as expressions of the earth itself). In this sense, one can say that Empire is concerned with social reproduction, albeit at the highest-possible scales – **one could even say that Empire is social reproductive force as inscribed upon the earth.**

The glacial valleys left behind by empire form natural schematics over which states and other mesoscale social operators trace, architect their borders and, in turn, fabricate themselves.

Again, we start with Deleuze and Guattari and work until we see the bone: "[t]he war machine is exterior to the State apparatus [,...] irreducible to the State apparatus, to be outside its sovereignty and prior to its law: it comes from elsewhere."[371] Indeed, the American military-industrial complex is a different object from the American state. In absolutely every sense, the military-industrial complex arrives *prior* to the American state — from its foundation, its imperial wars of annexation across North America and de facto colonization of adjoining territories, its post-Marshall Plan dominance of international geopolitics at scale, and its post-internet dominance of an emerging global noosphere.

The American military-industrial complex is also not strictly American, but part of an amorphous object that could be called *Five Eyes* or *NATO* or (to some extent) the *UN*, the counterforce to *BRICS*, the *Global North* or a number of other names, each one incomplete in its surveyorship of only an aspect of the force in question: empire.

But again, we pry back from Deleuze and Guattari once the role of the state is assessed – for them, again writing at a high point of

Westphalian power, the war machine is a howler of pure exteriority, yipping at the heels of the state[372] (who "constitutes the form of interiority we habitually take as a model, or according to which we are in the habit of thinking").[373] The state can try to capture the war machine by turning it into a military tool (thereby internalizing it as part of the state's apparatus of control), but the war machine cannot be domesticated, biting back.

This seems backwards. The 21st century state, if anything, feels like pure exteriority[374] – we can imagine "anomalous nomadic states"[375] drifting in and out of coherence as states, momentarily materializing from nowhere to issue a directive before knifing itself back out into inexistence. You stumble out of your hurricaned, now-submersed Georgia home and a FEMA official appears, but without any money, without any agency. When you rub your eyes, he's gone.

(You report the abduction of your daughter by a local cartel at a local police station in Ciudad Obregón, and the cop blinks. You move through various gang-controlled quasi-states daily in a slum outside of Port-au-Prince. You arrive at a shambling city hall outside of Bhagalpur with brown water, and the seated assembly shows you theirs).

In the pits left behind by this complex – in the impact craters of artillery shells, in the automatic mines of the war machine, in the older riverbeds, shale deposits, migration routes, and climate zones – here huddles the state, somewhere between a vassal and a squatter, conducting kangaroo court on local affairs in the shadow of a megalith, panickedly squirreling resources upstream, sprinting into the shadows upon a sign of threat. In these pits also wander the police, various autonomous surveillance drones connected to no inputs but teeming with guns, various black-market cartels banned from exocapitalist exchanges by virtue of their real-world human stink, all asynchronously stalking, prowling, slaughtering, hiding in niches. Incredible anarchy stuffed in slick, dark tunnels. (The atmosphere glitters with wildcode, you breathe it in, it's tasteless).

All of these scavengers act more like Deleuze and Guattari's war-machine than the actual concentration of military power down the chaotic runways of gradient descent, totally autonomous and unaccountable, even uncontactable until it slams into a local minimum and overflows in sludgy ruin. To find this kind of empire in the Deleuzian[376] taxonomy, we have to go to Antonio Negri and Michael Hardt, from whom we can construct the following:

capitalism
Classic *Anti-Oedipus* recap: the drive toward dedifferentiation (decoding and deterritorializing flows) through which the world is recoded according to axiomatic or algorithmic logic into an abstract system of universal exchange. "Capital tends toward a smooth space defined by uncoded flows, flexibility, continual modulation, and tendential equalization."[377]

the state
A locus of sovereignty "that transcends and mediates the plane of immanent forces,"[378] "a form of command that overdetermines the relationship between individuality and universality as a function of the development of capital."[379] There's some *Anti-Oedipus* redux – a de facto association between both capital and Westphalian sovereignty as indissociable yin and yang, push and pull, that keeps the immanent mush sorted into this or that boundary with this or that conditions of otherness.

But at the same time, this is hardly the all-powerful capital-S State of *Anti-Oedipus*, it's been demoted to the 'nation-state' ('member-state'), as in: "[t]he declining sovereignty of nation-states and their increasing inability to regulate economic and cultural exchanges is in fact one of the primary symptoms of the coming of Empire."[380]

empire
A new thing emerges, a next-step of capital as victor over the state, or of immanence as victor over transcendental sovereignty. The nation-state collapses (true) due to a sudden preponderance of objects unbeholden to the boundary conditions of yesteryear (NGOs, MNCs, etc...). However, this does not mean that the functions of the state disappear; instead, they manifest at higher levels:

"[c]onsensus is determined more significantly by economic factors, such as the equilibria of the trade

> balances and speculation on the value of currencies. Control over these movements is not in the hands of the political forces that are traditionally conceived as holding sovereignty, and consensus is determined not through the traditional political mechanisms but by other means. Government and politics come to be completely integrated into the system of transnational command. Controls are articulated through a series of international bodies and functions."[381]

Vertical integration; empire:

> Empire establishes no territorial center of power and does not rely on fixed boundaries or barriers. It is a decentered and deterritorializing apparatus of rule that progressively incorporates the entire global realm within its open, expanding frontiers. Empire manages hybrid identities, flexible hierarchies, and plural exchanges through modulating networks of command. The distinct national colors of the imperialist map of the world have merged and blended in the imperial global rainbow.[382,383]

Decentered and deterritorializing, yes, but in effect – not as a matter of rule. **Rule rule rule, control control control – empire is far too blunt to rule: it just randomly levels your city block**, vaporizing you without any regard for any activity you take – perhaps some advance drone has done the work of identifying you based on the color of your skin, your language, your home address, as an enemy, but it actually happens after the fact, with the 'surgical strike' carried out with a spatially-agnostic 'dumb bomb'[384,385] scheduled for delivery at your doorstep decades if not centuries before your birth, with the data collated simply for the bureaucratic proceedings[386] of an intergovernmental assembly without any agency. **To even call it deterritorialization feels wrong, it's just hole-making, there's no abstraction into immanence unless the plane of immanence is just parking-lot-ification.**

Foucault's paranoid legacy – is control worse than total vaporization? – is lodged into *Empire*, bringing with it a hard centricity on Europe (and America, for what it's worth). Hardt and Negri's empire emerges *sui generis* from the Enlightenment, not just in terms of its dialectical summoning but also in terms of the centricity it places on Europe as both the conceptual (e.g. Hobbes, Rosseau) and the transactional generators of sovereignty, capitalism, and empire. Almost 500 pages, but not a wisp of the ancient megamachine – no Persia, Turkey, Hun, Maya, Babylon, no linkage between soil and scale and historical momentum. But in reality, the aftershocks of the Scythian empire still resound as Russia grinds[387] itself through Crimea and Donbas, through the trade relations between Iran and China, through the concept of the 'buffer state' in the Pontic-Caspian steppe, through the compartmentalized caches of oil, gas, and minerals within the region. **Do not underestimate the ancient megamachine; it still smashes the earth.**

Hardt and Negri published *Empire* in 2000, perhaps the last possible year one could close a political masterwork with a vision of imperial decadence buckling under its own bureaucratic weight, multitudes rising up, power-balances shifting. No, bang, the towers fall and "[n]ow, we are forced to strike back, to deal with real enemies in the real world... However, WHOM to strike?"[388] Easy answer – absolutely no change, total tectonic stasis for 2500 years, Rome is back at it with the Parthians, Byzantium with the Sassanids, empire slugs through again and again.[389]

Our alternative to Hardt and Negri's empire (and *Empire*) in brief:

(exo)capitalism
The arbitrage mechanism. The modulation of friction within a flow generates opportunities for new flows. A virus or *nam-shub*[390] encoded into time and world. Wildcode.

the state
A nomadic encampment in the foothills of empire, a tenuous and shaky resource-management and distribution system whose legitimacy as such suffers at scale.

empire
A curvature in world-space, a dynamic but geologically[391] slow system of inflections[392] in the availability of resources for terrestrial metabolization, the local

> apotheosis of which is human social reproduction especially as it articulates the technicity of the metabolic process. Empire is an object whose history predates the state and is a precondition for the state, as it is for human social reproduction at scale.

The relationship between the state and exocapitalism has been established earlier: the state attempts to court exocapitalist flows through which to shunt social reproduction tasks, especially at scale, but struggles due to the lift of exocapitalism from the human layer. The state is just drag force, suffocating on hot air.

The relationship between empire and exocapitalism is more complicated, older, and deeper. In some ways, empire constitutes the 'roughing-up'[393] of the world at a much larger scale than any given state might accomplish — in this sense, operating like a state in some ways by (however advertently) courting the interests of exocapitalist proliferation. But empire is less like a member of a class that also contains states (organizations of humans) and more like a member of a class that also contains exocapitalism (indifferent, autonomous, multi-scalar forces). States, as established, are ruffians or raccoons.

Is a company like Boeing, for example, moving along exocapitalist lines of flight? In some senses, absolutely — not only do its operations contain a significant deal of financial engineering (stock buybacks,[394] lobbying activities[395]), it also manifests a peculiar form of lift. The classical aspect to Boeing's lift (pun not intended) is its global supply chain strategy, in which the physical operation of building planes is outsourced to international third-party suppliers and Boeing itself becomes a business chiefly focused on abstract labor (design, engineering, and financial engineering). The obvious case study here is the 787 Dreamliner, a commercial airliner to which Boeing applied an array of third-party, international contract labor toward virtually every physical domain of production, including quality control and oversight.[396]

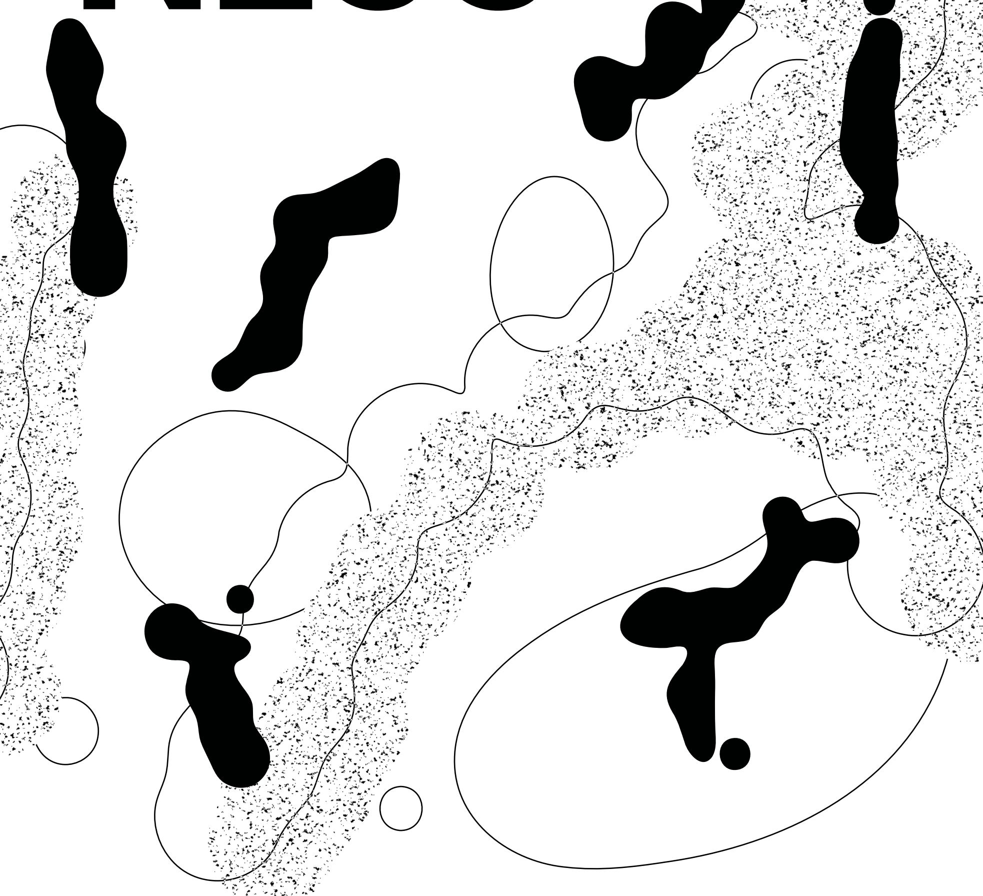
However, there's another type of lift present in Boeing's business strategy. Despite holding a monopoly (or rather sustaining a duopoly[397] with Airbus) on commercial airliner production, Boeing is failing – as a result, despite its position at the top of the food chain, Boeing still lifts[398] away from the commercial production-consumption dynamic, in principle due to its volatility, but perhaps also due to the limitations we know this dynamic imposes on exocapitalist sprawl.

But instead of a simple inflection to straight financial engineering, abandoning physical operations to classical neoliberal leanness, Boeing also pivots to the direct, captive market of empire itself – the American defense industry.[399]

The American military industrial complex is the ultimate dark pool, a nearly trillion dollar industry with a history of speculative financial activity (only 3.4% of the American GDP,[400] however, an often-ignored component when addressing the respective size of this complex). While this spending is, in principle, ultimately tied to physical consumables, the last 20 years of American military spending paint a picture of massive bureaucratic overhead and fertile breeding ground for exocapitalist proliferation: the canceled Future Combat System[401] ($21 billion USD), the kneecapped F35 Joint Strike Fighter Program ($1.7 trillion USD),[402] and the recent Joint Warfighting Cloud Capability Program ($1 billion USD so far, with contracts awarded to AWS and Microsoft's OpenAI).[403]

Is empire courting exocapitalist attention, as laundered through the state, in order to outsource its own objectives? Or, rather, are the crevasses being cut through the world, as temporarily and arbitrarily hewn by the empire, simply just mature breeding grounds for exocapitalist speculation, fertile valleys hidden from direct sunlight due to the depth and intensity of the cut, within which states scuttle around building nests from local flora? (Exocapitalism has no understanding of or concern for empire, but tends to proliferate away from sunlight and soil.)

THERE’S A GIDDINESS



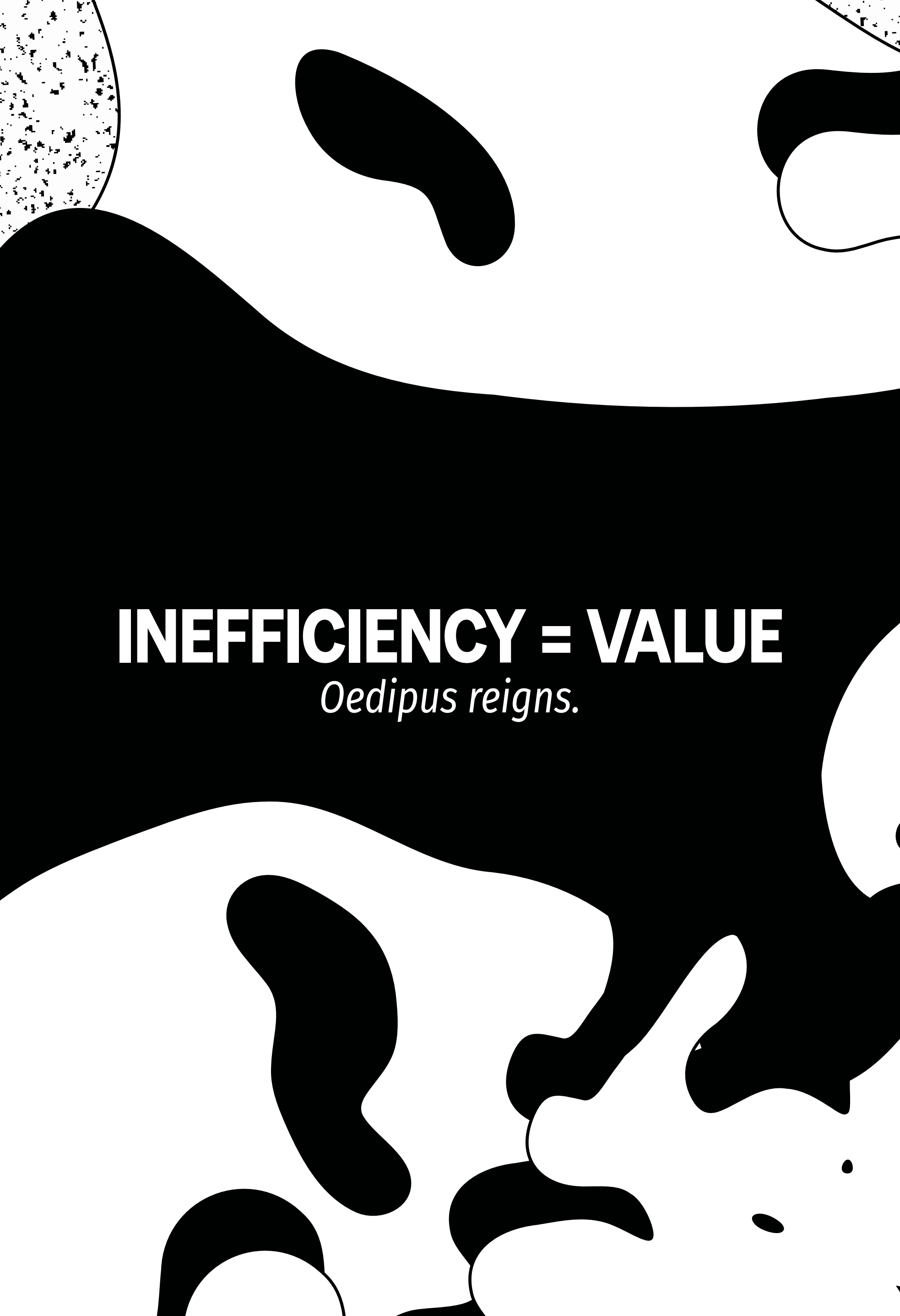
... that almost illuminates our fingers as we conclude this book without prescriptions for the future, without reasonable cope for those morphological modifications unspeakably and irresistibly imposed upon ***us*** by an incoming barrage of intra-scalar arrivals (climate, compute, resource, population, history).

All we really have is this: the way that the critical apparatus tends to think about capitalism is **wrong** and it should be amended, full-stop. The Marvel Cinematic Universe theory of capitalism as a universal bogeyman is wrong. It doesn't help us to intentionalize an introverted, ambivalent multi-scalar fractalizing machine as some kind of monster and it doesn't help us to suffer illusions about our own respective capacities.

Hopefully, our lack of productive insight keeps this text packaged as something other than a manifesto (though a still-cringe phenomenology of an alien encounter, maybe? But not a guide to exit). It's just a warning (*not that we aren't already dealing with a surplus of warnings*) that capitalism is well-positioned to shirk almost all of its half-assigned and half-executed limp, flaccid, arbitrary entrapments in social reproduction **now**, literally it is happening now, leaving behind our blistered, devegetated earth, enfolding itself into higher, tighter, smaller, thinner dimensions until: poof, we can't see it anymore.

What will we do then?

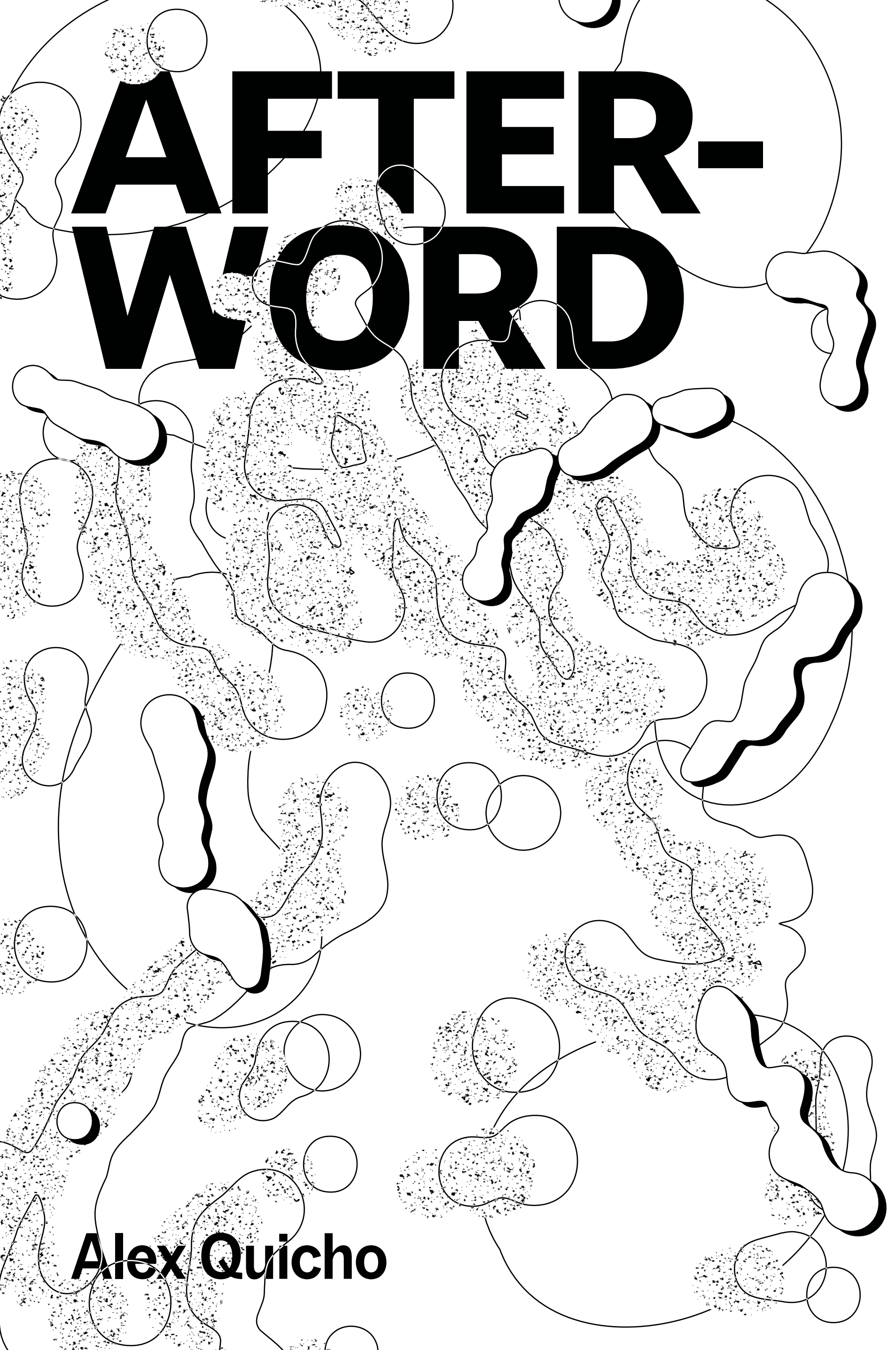
[[… 30 million years from now, a descendent of the burrowing crab – "a round thing, the size of a football perhaps […] black against the weltering blood-red water"[404] – tickles its way around the outside of its burrow within the "estuarine mangroves of Fukido River in the northern part of Ishigaki Island"[405] (now nameless and overgrown, inching closer and closer to mainstream Asia). This isn't a special burrowing crab, but it's one that's become rather good at sealing its niche of burrows around the enclosure of a small tidepool system. For so long, the life of this crab has been dominated by lunar doctrine. Sediment starts to self-separate, algae starts to accumulate, submerged decaying matter becomes more accessible, and then… whoosh! The water pours in, organics dilute and flush out, there's a desperate scuttling, things start over again from scratch. But… no longer – this time, the crab plugs its burrows with sand and mud in just such a fashion that the tide fails to overcome the enclosure, which continues to drain until most of its rich ferment is exposed. The crab has escaped its dependency on the coincidence of "simultaneous light and low tide,"[406] it is now the maître of time. Tidal cycles transform into controlled time windows for resource access. The future appears: the modulation of tidal influx and outflow creates compressed, high-density feeding periods or elongated, low-density periods as needed. The longer the hold, the greater the bloom (within reason). All levels of the tidepool stack undergo a transformation in the tempo of survival itself, the crab accelerates or denudes algae growth, decay, sediment settling. A huddle of smaller things emerges at the opening, pinioning itself together for access at just the right moment. A modulation, a cache, a future, a border, a population, a system …]]



INEFFICIENCY = VALUE

Oedipus reigns.

AFTERWORD



Alex Quicho

Sex Money Feelings Die

What happens to feeling, after the body has become a "detestable but necessary add-on to a world that really doesn't want to be around us anymore, and has given up pretending otherwise," as Daniel Felstead & Jenn Leung put it in their video essay, *Welcome to Jankspace, Babes*?[407] Flesh and psyche strain under "janky capitalism," or what Maya B. Kronic has rebranded as *jankspace*, after Koolhaas' concept of *junkspace*: the "low grade purgatory" left to us in "the space that's actually there for us to live in after all of modernity's high-level visions of rational ordered living and guaranteed social cohesion have been parceled out [...] executed piecemeal, rolled out by a hundred different institutions and agencies, and lashed together in a makeshift integration." Cute Gen X slang aside (*does anyone say janky anymore?*), the concept is sound: the world is not a smooth continuousness—glassy as the bow of a Monaco yacht, *like water in water*—but a strapped-together monstrosity of poorly functioning parts. Its totalizing touchscreens and quarter-zip founder bombast rests precariously upon a tumorous mass of factory floors, open mines, and human body parts (integrated or severed): the vestiges of *old capitalism* that still churn beneath the new version's lifted sheen.

The gore layer—the churn of bodies, dead, alive, or half-living, between the overworld of sanctioned violence and underworld of criminality—propels lift. As Sayak Valencia writes in *Gore Capitalism*, criminality is the norm, not the exception—and part of the pragmatic function of lift is to protect legitimate entities from the consequences of requisite activities in the shadow realm.[408] Extra-judicial killings, mass bribery, extortion, money laundering, human trafficking, and good old fashioned war-mongering support the spin of extractive capital into abstracted software, crushing minerals and blood into a valence of experience that seems as light as an oleophobic touch. These activities don't hinder flow, as liberal humanist interpretation leads us to believe, but exploit the same zones of inefficiency that produce value for more legitimate entities. In their video, Felstead and Leung craft a portrait of the gig worker on fire—a burnt-out Uber or Grab driver, with their spidery armatures of multiple cellphones tubed into an algorithmic ride-hailing system, their cars or motorbikes kitted out with aftermarket optimizers, their Nestlé bottles of urine and discarded fast food wrappers tucked neatly beneath the shotgun seat. Now, try hailing that ride out of the city. Get dropped at your pin and leave them behind. Follow the exhaust fumes all the way to the borderlands, and find the gated compound there, high walls threaded with barbed wire. Sniff around this other *janky* infrastructure, solid as its breezeblock walls and ready-made for exocapital. The compound encloses hundreds of trafficked and forced laborers who run 'pig butchering' scams. Each of these long-term extortions starts with a single sexy message sent by a human hand. Hundreds of thousands of phones ping. Thousands of easy marks find themselves enticed and keep texting in spite of the stranger danger, hearts jumping to the rhythm of incoming missives, until their foreign friend drops the link to the dupe money management platform and slurps their savings up. The human "pig" is fattened through flattery, and slaughtered by the prick of their own PIN. *Sorry, baby, but this is going to hurt.*

Lovescams siphon $17 billion annually from the smooth space of legitimate spending and into the blood-powered underworld from where it will be laundered and recirculated. It makes sense that scammers prey upon the lonely and vulnerable subjects of exocapital. These are the numbed-out bodies left after lift, which—in spite of everything—still radiate desire. A miracle: corralled and cornered off into logistical end-points, managerial strata, or finely-chopped piecework, the human animal will not cease to yearn. Longing, loneliness, and horniness becomes ripe for what Anna Tsing, matsutake theorist, might call *salvage*[409]: where extra-capitalist activity—a daydream, a sext, an idle fantasy—is scraped inwards and reintegrated into exocapitalist frameworks that prospect for unruly and yet-unintegrated forms. It makes sense that these scams are so effective that copycat 'scam stacks' have sprung up globally outside their originating Southeast Asia, taking advantage of the drag of poor governance and economic instability to establish logistical layers of criminality. These include recruitment, trafficking, technological innovation and money laundering that can then refine and play out the superior conceits of the pig-butchering genre. From call centers emptied by telecom automation to migrant laborers first recruited to build out desert starchitecture, the physical husks left behind by lift play host to parasitic value creation, making exocapital both cannibalistic and carrion-feeding.

> The body is the basic unit of the Real.
>
> Lift draws capital up and away from the Real. It is the operation of abstraction that turns cyclones into insurance windfalls; mood-swings into market crashes; and interfaces into goldmines. Lift is what makes it necessary to even distinguish the Real from its alienating derivatives.
>
> Lifting makes the illusion of bloodless extraction robust. It pulls up off the runway into cool, managerial quiet until diesel-choked gridlocks resemble night-jewels, open mines like ornamental spirals.
>
> *Chat, is this real...?*

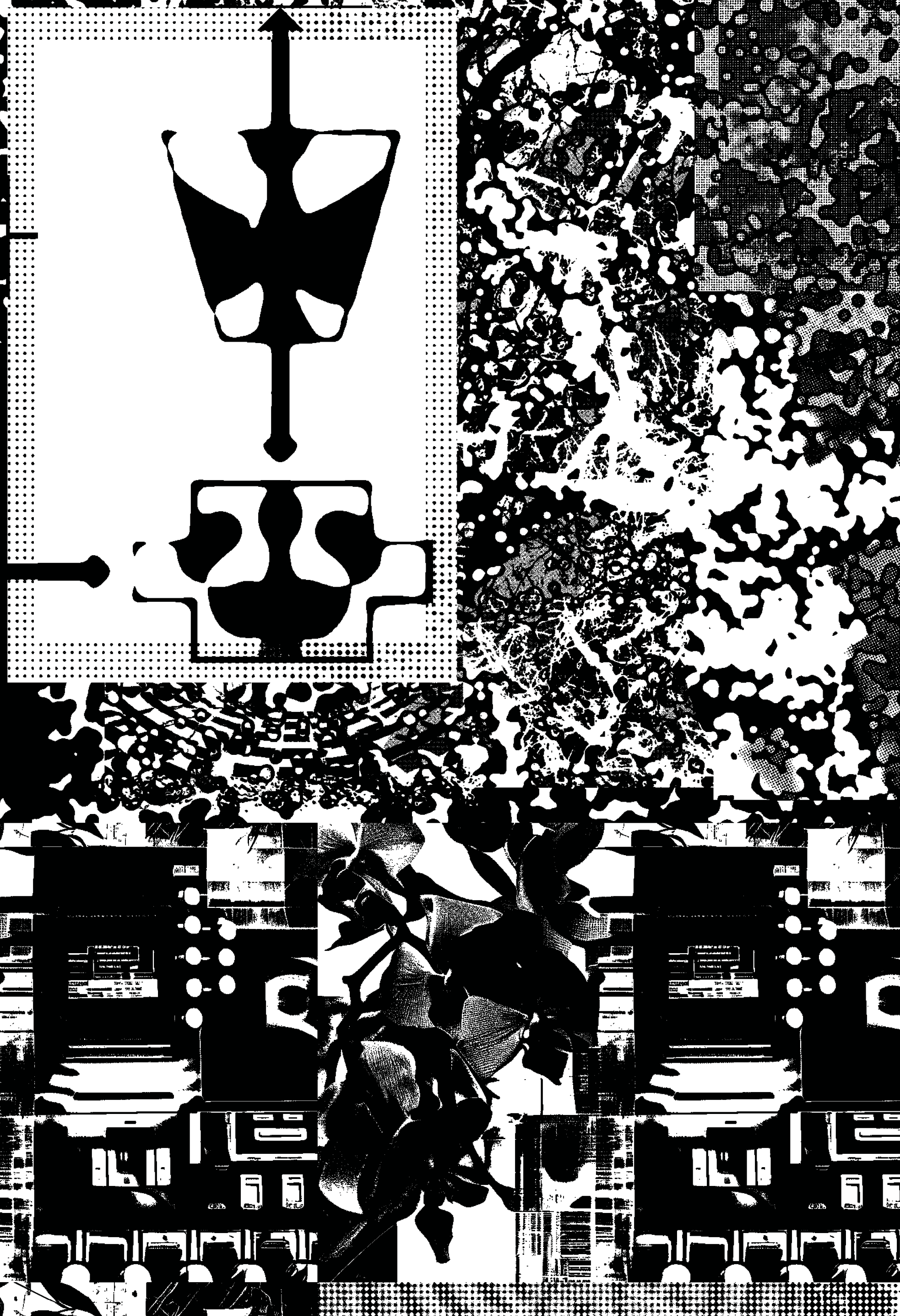
Numbed out, chewed up, strapped down. The state of the body produced by exocapitalism may explain why the different media of exocapitalism are so... ecstatic. Even this writing lends itself to an onrush of run-on sentences, the sensation of pulling a thread only to see the whole thing unravel. One can only describe what is happening by following links to links to links, disturbed by the scramble between macro-, micro-, and meso-scaled effects and causes. The links do not assemble into any discernible story. Unnarratability is both the condition of culture under exocapital and a classic symptom of traumatic experience. Not the digestible self-flagellation of "trauma narrative" as covered by critics of millennial media, but the shredded and unedited result of sudden or continuous exposure to pain.

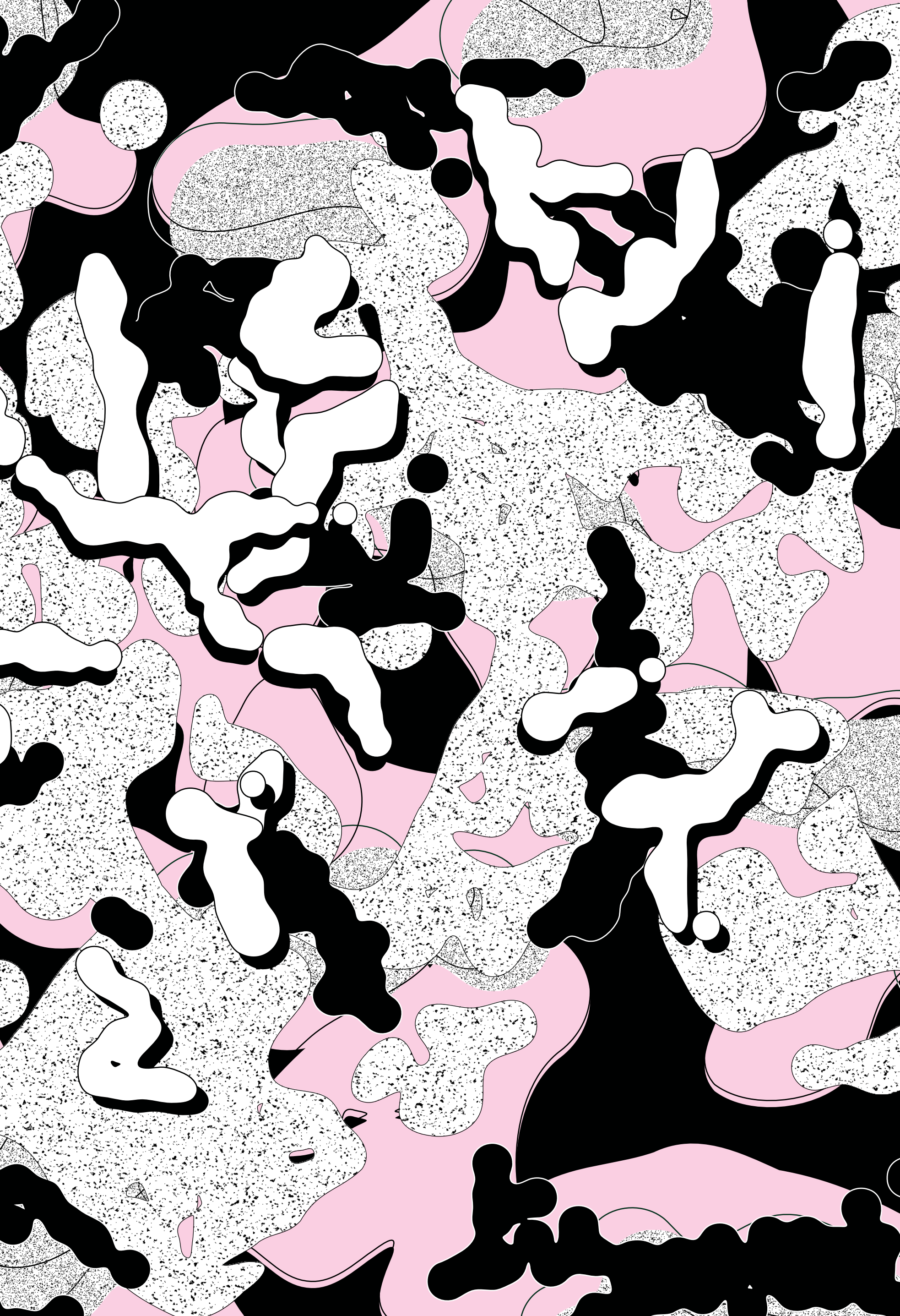
Unnarratability may be *immediacy* by another name. As cultural critic Anna Kornbluh has written, distance and mediation disintegrate as software eats culture[410]. In place of contemplation and reflection, one encounters forced closeness. Access and proximity are mistaken for eros and intimacy, while high-grade intensity obstructs internalized experience—blocking, the argument goes, any chance of developing a faithful understanding of the world. Instead, we get both confusion and a profusion of unexamined feeling, a "waxing of affect" that ruins us by razing contemplative pauses and reflective lacunae. But while the media Kornbluh concerns herself with are certainly the airless, airtight outputs of the software economy 2.0—360 Van Gogh exhibitions, Tweet-like autofiction, performative liberal politics and reality-adjacent streaming shows—the analysis flows right past the ever-present escape routes. If exocapitalism is fissile, viral, and agile, so are its evasions.

The hard contact of *immediacy* has slammed some edge cases into an angelic state, where the lived experience of lift may be charged with a transcendental eros, a yearning to follow capital up and away from gore reality. A seduction by inhuman alienation. A revival of the religious impulse, as mystery suffuses literally everything. Just-passed subcultures have spawned from what Samuel Beckett would call the *unnature* of language, and what Reza Negarestani would call the *inhuman* aspect of relation. AI slop supercuts and surrealistic montage; kabbalistic or Kali Yuga incantations; brain-blasting sleaze and EDM renaissance; redacted faces and bodies cut, bruised, and prostrated by acts of war or devotional fervor. Users once determined to announce their Unique Selling Presence now melt into a same-faced morass: all the better to slip through the algorithmic churn, detected but undetected, captured yet strangely free. Altogether, there is a maximalism of affect that accumulates as a scream. A firehose of content that mimics the accelerationist imperative. And a nauseating melt between people and things, action and background, generated by unworlded machines. Under the onslaught of platform imperatives, even subjectivity gets lifted.

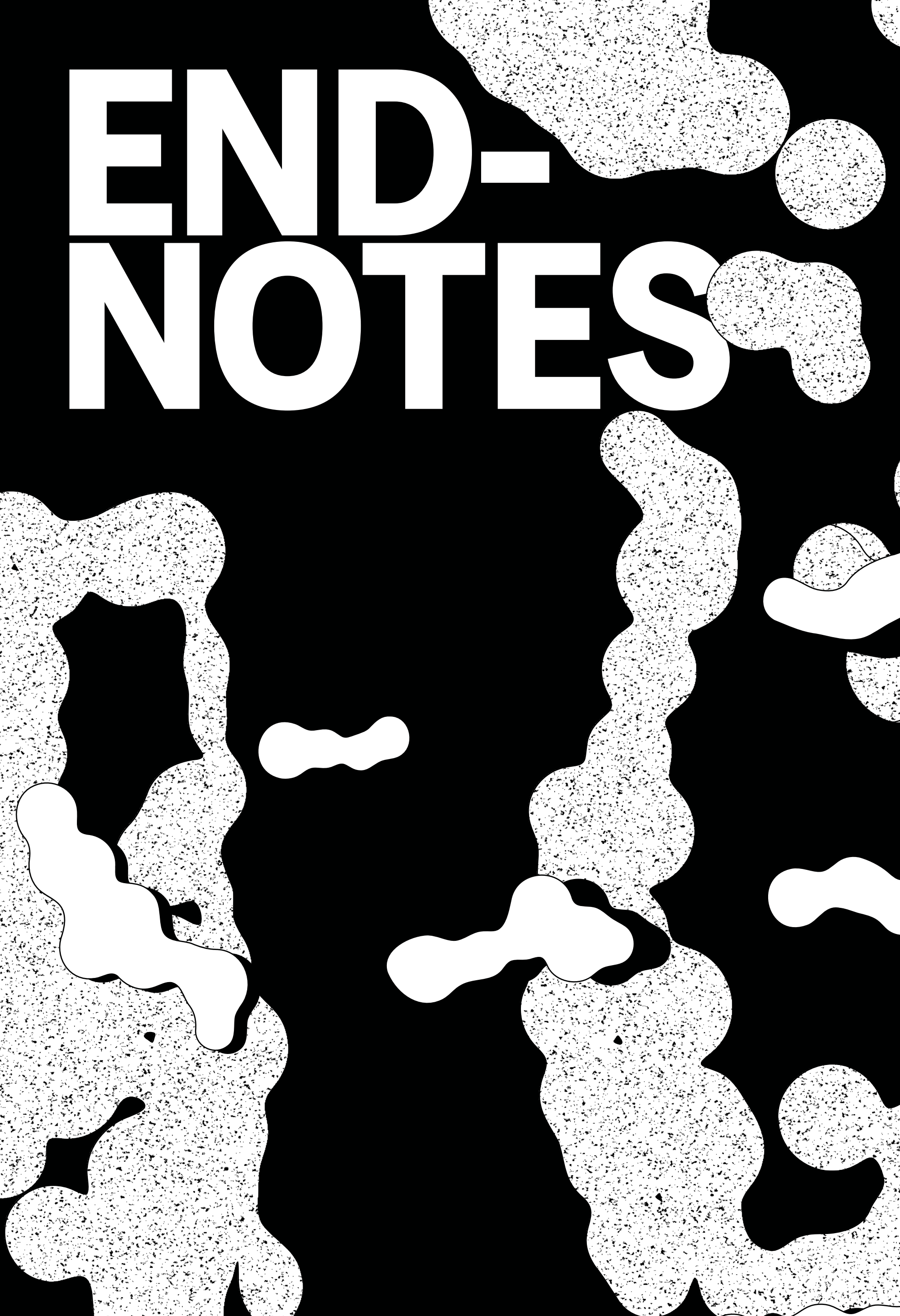
What one craves after this numbing overload is revelation: light breaking through a chapel window, a rock through a computer screen, the feel of grass on printless fingers. One can't help but notice the proliferated reactionary works about celibacy, purity, and fear—and the radical reorientation toward direct action, from attempted siege-breaking to industrial sabotage. As Poliks and Trillo front-load: exocapitalism is a cosmology, pinpointing the imperfectly valuable and valuably imperfect mistranslation between *two or more worlds*. "Server farms are places of death," writes Byung Chul-Han. "The revolt of death cannot unhinge the capitalist system. What is needed is another form of life, one that rescinds the division between life and death and reconnects the two."[411] What type of life will rescind that division? In the schema of the World System and Continents surrounding Mount Mehru—the Buddhist axis mundi—8 Hot Hells and 8 Cold Hells comprise the Earthly realm. These resemble—or predetermine—a stack diagram.

Alex Quicho, June 2025





ENDNOTES



[1] Horton, Zachary K. *The Cosmic Zoom: Scale, Knowledge, and Mediation.* The University of Chicago Press, 2020. (Thanks to both Lil Internet and Patricia Reed for introducing us to this book!).

[2] This is the problem of late Deleuze, beginning even as early as *A Thousand Plateaus*: ontological wishy-washiness borne out of a deprioritization of the possibility of real alterity, real difference, in favor of an assumedly infinitely-elastic immanent cosmology.

[3] e.g. Timothy Morton's 'hyperobject.'

[4] We call this Foucauldian paranoia: the idea that for some reason it is the human subject that is the denotative prey of the universe, its ultimate victim, and in turn ironically the *de facto* subject of cosmo-macroscopic moral theater. The acrimony for Foucault could be earned by any number of other thinkers, perhaps those collected by Quentin Meillassoux under the header of 'correlationism.'

[5] (*The Cosmic Zoom*, p. 8)

[6] Reed, Patricia. "Orientation in a Big World: On the Necessity of Horizonless Perspectives." *e-flux*, no. 101. June 2019.

[7] Karen Barad's replacement for interaction, in a cosmology where a component is defined by its relationality prior to any other definition.

[8] There's a lesson here.

[9] A Kubernetes-powered software monster doesn't really look like that humble little Flask server – you engage with each of those things in different ways, and they constitute or represent very different ways of thinking, even though their functional definition may be identical.

[10] Agüera y Arcas, Blaise. "4. Family Models." *Who Are We Now?*, Hat & Beard Press, 2023. [http://whoarewenow.net/]

[11] "On the whole, this seems like progress. [...] However, such progress comes at a price, as we've seen." *(Who Are We Now?, Introduction)*.

[12] In a conversation about this book, Richard Hames reminded us of the assassination attempt by Thomas Matthew Crooks on the life of Donald Trump – if the wind had not intervened in the subtlest possible way, the next 10 years (perhaps even 100 years) of human political history could have changed so remarkably.

[13] Or horrifying – thinking about the work of Eugene Thacker, for example, on cosmic horror, philosophy, and the world as disaster.

[14] e.g. Kant's *sublime*.

[15] (*The Cosmic Zoom, p. 8.*)

[16] Wynter, Sylvia. *On Being Human as Praxis*. Edited by Katherine McKittrick, Duke University Press, 2015, p. 44.

[17] (*On Being Human as Praxis, p. 21*).

[18] "The planetary scale isn't just an external condition, but also provides a conceptual opportunity to reframe where the human stands within this scale, a repositioning from which other pathways and logics for navigating the world cascade. What new perspectives are opened

when human self-picturing is repositioned at and within this nth dimensionality? What other modes of relation unfold from the repositioning of self-picturing; and how can the consequences of this perspectival shift be narrated in both hypothetical and meaningful ways?” *(“Orientation in a Big World”).*

19 Foreign Objekt. “Roberto Alonso Trillo & Marek Poliks | Non-Player Dynamics: Agency Fetish in Game-World.” *YouTube*, 31 Mar. 2024. [http://www.youtube.com/watch?v=KHfNS3K4fRA]

20 Jussi Parikka explains how “as a generative operation with a qualitative impact, scale itself becomes an operation of simulation and modelling. It starts to generate worlds that do not merely reproduce the existing realities but play their own game with a peculiar set of rules” - Janša, Janez F., and Nóra Ó Murchú. A Short Incomplete History of Technologies that Scale. Ljubljana: Aksioma, 2023, p. 19.

21 e.g. Benjamin Bratton’s “positive biopolitics based on a new rationality of inclusion, care, transformation and prevention, and[...] a philosophy and a humanities to help articulate it.” – Bratton, Benjamin. “Agamben WTF, or How Philosophy Failed the Pandemic.” Verso, 28 July 2021. [http://www.versobooks.com/blogs/news/5125-agamben-wtf-or-how-philosophy-failed-the-pandemic]

22 A CRM is essentially a tool that business uses to store information about its customers (who works at a company, what they do, what is their contact information) and then action that information to make sales forecasts, send out marketing materials, track a business opportunity, etc...

23 Srnicek, Nick. *Platform Capitalism*. Polity Press, 2017, p. 30. We prefer Benjamin Bratton’s definition from *The Stack*, though it’s abstract enough to be somewhat low-utility: “Platforms are what platforms do. They pull things together into temporary higher order aggregations and, in principle, add value both to what is brought into the platform and to the platform itself. They can be a physical technical apparatus or an alphanumeric system; they can be software or hardware, or various combinations.” Bratton, Benjamin H. *The Stack: On Software and Sovereignty*. MIT Press, 2016, p. 41.

24 The Metaverse’s iconically empty city square.

25 Video game platforms: Steam is a delivery platform and Unreal is a game development platform.

26 While the theory world loves to conflate ‘platforms’ and ‘social media platforms,’ the latter is a relatively tiny subset of the former.

27 Google insists that they are *not* a platform, because: “Google does not aspire to be just another platform like other platform players are, like: Microsoft on its PC software platform, Apple on its device platforms, Amazon on its retail platform, or Facebook on its social platform. Google CEO Larry Page goobristically[sic, lol] aspires for

Google to be the Internet world and default web foundation to which all other platforms must adapt." Cleland, Scott. "Why Google's Not a Platform." *Forbes*, 19 Oct. 2011. [http://www.forbes.com/sites/scottcleland/2011/10/19/why-googles-not-a-platform/]

28 Think about the Game as a Service platform, like *Roblox*, which is *technically* a game, but also a social media platform, an abstract marketplace, and (most importantly) a vehicle for user-generated content, specifically games built atop Roblox's infrastructure. The ***expectation*** of Roblox is that it is incomplete on its surface, it encourages both hosted activity but also development activity atop its technical surface.

29 "Experience Cloud Overview." *Salesforce*, Salesforce.com. [http://www.salesforce.com/products/experience-cloud/overview/]

30 Integrations boom in application marketplaces on both Salesforce and Shopify, for example: "Sync Made Easy." *Salesforce App Exchange*, Salesforce.com. [https://apps.shopify.com/salesforce-sync] – or "Salesforce Sync." *Shopify App Store*, Shopify.com. [https://apps.shopify.com/salesforce-sync]

31 Another industry euphemism: 'channel' typically means 'partner,' e.g. a co-marketing partner.

32 (*Experience Cloud Overview*).

33 i.e. instead of 'being' (a fixed ontological position), 'becoming' (a never-ending, dynamic transition): a thing can be defined less by what it is and rather by the way that it changes.

34 "Stripe for Salesforce." *Salesforce App Exchange,* Salesforce.com. [https://appexchange.salesforce.com/appxListingDetail?listingId=4dff0f8e-0b10-47c2-a3a3-f3905e7f7927]

35 Disclosed by employees during interviews for this book.

36 Bhattacharya, Megha. "Stripe Powers Salesforce's Digital 360; Strikes Commercial Partnership." *IBS Intelligence*, 25 Sept. 2020. [http://ibsintelligence.com/ibsi-news/stripe-powers-salesforces-digital-360-strikes-commercial-partnership/]

37 e.g. "the coils of a serpent are even more complex than the burrows of a molehill" – Deleuze, Gilles. "Postscript on the Societies of Control." *October*, vol. 59, Winter 1992, pp. 3–7. The MIT Press. p. 7.

38 "Salesforce and DocuSign Team up to Enable Contract Collaboration." *Salesforce Newsroom*, 27 Oct. 2021. [http://www.salesforce.com/news/press-releases/2021/10/27/salesforce-and-docusign-team-up-to-enable-contract-collaboration/]

39 (*Salesforce and DocuSign*, quote from Scott Olrich, COO, DocuSign).

40 "Salesforce." *StackShare*. [http://stackshare.io/salesforce/salesforce]

41 Ten years ago, SFDC was entirely self-hosted, with "data stored in only ten databases that run on about 50 servers" as recently as 2009 – Arrington, Michael. "The Efficient Cloud: All of Salesforce Runs on

Only 1,000 Servers." *TechCrunch*, 23 Mar. 2009. [http://www.techcrunch.com/2009/03/23/the-efficient-cloud-all-of-salesforce-runs-on-only-1000-servers/] – this is absolutely no longer the case; "running in public cloud makes deep sense for Salesforce..." The elasticity of public cloud allows them to dynamically scale resources and ensures data residency compliance across regions – Salesforce Engineering. "The Unified Infrastructure Platform Behind Salesforce Hyperforce." *Salesforce Engineering Blog*, 21 Jan. 2021. [https://engineering.salesforce.com/the-unified-infrastructure-platform-behind-salesforce-hyperforce-ad8f4c2cf789/]

42 It is known that more than half of AWS's physical footprint is leased, but information on how much of AWS compute is run on their own physical infrastructure is not public – Edgecliffe-Johnson, Andrew. "AWS Owned 177M Sq Ft of Property, Leased 204M Sq Ft in 2023." *Data Center Dynamics*. [http://www.datacenterdynamics.com/en/news/aws-owned-177m-sq-ft-of-property-leased-204m-sq-ft-in-2023/]

43 "Salesforce and AWS Partner to Bring AI to Dreamforce." *Salesforce Newsroom*. [http://www.salesforce.com/news/stories/salesforce-aws-ai-announcement-dreamforce/]

44 "Salesforce and AWS Expand Strategic Partnership with Data and AI Enhancements." *Salesforce Newsroom*. [http://www.salesforce.com/news/press-releases/2023/11/27/aws-data-ai-strategic-partnership-expansion/#:~:text=As%20part%20of%20this%20partnership,regional%20support%20planned%20for%202024]

45 Luciana Parisi so elegantly describes endosymbiosis in non-metaphorical terms in *Abstract Sex:* "The endosymbiotic stratification of sex, however, challenges this constant cycle of life and death drives (the linear flow from inorganic to organic, simple to complex). The symbiotic folding of inorganic masses of bacteria in the organic smaller and polarized genetic chromosomes in the eukaryotic cell constitutes meiotic sex as a machine that envelops while being enveloped by inorganic soma. Somatic death does not indicate regression of organic life towards inorganic dissolution. Rather, the emergence of cellular death is linked to the molar (nucleic) organization of bacterial bodies in the eukaryotic cell introducing a cancerous metastasis in the lineage through the duplication of the nucleus." Parisi, Luciana. *Abstract Sex: Philosophy, Biotechnology and the Mutations of Desire*. Continuum, 2004, p. 77.

46 "Zendesk vs HubSpot." *Zendesk*. [http://www.zendesk.com/service/comparison/zendesk-vs-hubspot/]

47 *(Platform Capitalism*, p. 62).

48 e.g. Yanis Varoufakis (Varoufakis, Yanis. *Technofeudalism: What Killed Capitalism?* Bodley Head, 2023.) or Slavoj Žižek (e.g. referencing Varoufakis here – "Global Capitalism Is Fueling War and Conflict."

Project Syndicate, 9 Sept. 2024). [http://www.project-syndicate.org/commentary/global-capitalism-fueling-war-conflict-sudan-congo-libya-elsewhere-by-slavoj-zizek-2024-09]

49 Uncharitably cherry-picking from both *Platform Capitalism*, but especially from his absolutely excellent interview with Joshua Citarella – Srnicek, Nick. "Platform Capitalism." *Joshua Citarella Podcast*, 1 May 2022. [https://open.spotify.com/episode/7yKABZ16lHdJGK2W66mPqt]

50 e.g. Shoshanna Zuboff in *TIME*: "The giants and their ecosystems now own all the data about all the people, the data science and the scientists, the cables, computers, and clouds. They control the global market in knowledge production known as artificial intelligence and machine learning. They decide what becomes knowledge, who knows it, and to what purpose." "Democracy Can Still End Big Tech's Dominance Over Our Lives." *TIME Magazine*. 5 May 2022.

51 (*Platform Capitalism*, p. 50).

52 A marketplace for sellers.

53 e.g. Day, Matt. "FTC Antitrust Lawsuit Against Amazon Will Proceed; Some Claims Dropped." *The Seattle Times*, 30 Oct. 2024. [https://www.seattletimes.com/business/amazon/ftc-antitrust-lawsuit-against-amazon-will-proceed-some-claims-dropped/]

54 Corey Doctorow argues, channeling Yanis Varoufakis, that Amazon's Marketplace is a post-capitalist object, functioning as 'owned land' that renters pay to use. In this sense, Amazon literally becomes a world, with all the diffraction therein entailed. Doctorow, Cory. "Managerial Discretion and Junk Fees." *Medium*, 1 Mar. 2024. [http://doctorow.medium.com/https-pluralistic-net-2024-03-01-managerial-discretion-junk-fees-c599c3a3439c]

55 This is not just us being poetic, but literally the rhetorical path Amazon takes to undermine the FTC's monopoly charges. (*Managerial Discretion and Junk Fees*).

56 "[T]he largest, fastest growing and most profitable part of Amazon's retail operations is its Marketplace. Here Amazon owns no inventory and receives a fat fee on the nearly $400 billion in GMV (gross merchandise value) it helps sell." Dennis, Steven. "What We Get So Very Wrong About Amazon's Retail Profitability." *Forbes*, 7 Feb. 2022. [http://www.forbes.com/sites/stevendennis/2022/02/07/what-we-get-so-very-wrong-about-amazons-retail-profitability/]

57 e.g. Sorrentino, Alexandra. "Cloud Market Share in Q2: Microsoft Drops, Google Gains, AWS Remains Leader." *CRN*, 2024. [http://www.crn.com/news/cloud/2024/cloud-market-share-in-q2-microsoft-drops-google-gains-aws-remains-leader]

58 Alibaba and Alibaba Cloud is the most like-for-like comparison with Amazon and AWS, but is a largely a regionally-demarcated alternative.

59 "Amazon Web Services Products and Services Overview." *Amazon Web*

Services. [http://aws.amazon.com/products/]

60 From Caroline Busta: "But we textual humans, so Flusser argues, are now living in a world organized not by text but by these technical images, which is to say media that compresses reality via processes we do not fully understand. According to this idea, we now predominantly transmit information in ways that exceed the limits of alphabetic code, and we gained this ability so rapidly that we are civilizationally unprepared to absorb the shift." Busta, Caroline. "Hallucinating Sense in the Era of Infinity-Content." *Document Journal*, 29 May 2024. [http://www.documentjournal.com/2024/05/technical-images-film01-angelicism-art-showtime-true-detective-shein/]

61 Especially if you combine cloud services with 'strict' SaaS – for the purposes of this book, both are functionally identical (passive rent-seeking on access to software services, infrastructural modularity, strong priorities on recurring revenue as primary metrics). Just the pure SaaS market is undergoing rapid global expansion, with the U.S. leading as the dominant market (projected to reach $225 billion by 2025), the Asia-Pacific region experiencing robust growth driven by China and India (16.1% CAGR), and Europe, led by Germany, benefiting from rising adoption rates and increased funding. To be clear, the general SaaS-ification of economies across the globe eclipses the pure SaaS business by at least an order of magnitude – see both *"SaaS Statistics: Everything You Need to Know in 2024." SaaS Academy* [http://www.saasacademy.com/blog/saas-statistics], and *"Cloud Computing Market - Growth, Trends, COVID-19 Impact, and Forecasts (2024-2029)." Mordor Intelligence*. [http://www.mordorintelligence.com/industry-reports/cloud-computing-market (for respective scales of this nearly trillion-dollar economic model)].

62 "But the exchange of commodities is evidently an act characterised by a total abstraction from use value. Then one use value is just as good as another, provided only it be present in sufficient quantity. [...] As use values, commodities are, above all, of different qualities, but as exchange values they are merely different quantities, and consequently do not contain an atom of use value." Marx, Karl. *Capital: A Critique of Political Economy. Vol. 1,* translated by Ben Fowkes, Penguin Books, 1976, p. 127.

63 (*Capital: A Critique of Political Economy*. Vol. 1, chapters 6 and 26.)

64 Engels, Friedrich. *Anti-Dühring*. Marxists Internet Archive, 1877. [https://www.marxists.org/archive/marx/works/1877/anti-duhring/]

65 "8 Predictions for the World in 2030." *World Economic Forum*, 11 Nov. 2016. [http://web.archive.org/web/20161125144156/https://www.weforum.org/agenda/2016/11/8-predictions-for-the-world-in-2030/]

66 "The Great Reset." *Institute for Strategic Dialogue*. [http://www.isdglobal.org/explainers/the-great-reset/]

67 Here's a very cute support forum conversation about this issue: *"If I Already Own Final Cut Pro on My Mac Device, Will I Still Need a Subscription for the iPad Pro Version?" Apple Support Communities*, 12 May 2023. [http://discussions.apple.com/thread/254858209?answerId=259090264022&sortBy=rank#259090264022]

68 e.g. "How to Calculate Annual Recurring Revenue." *SaaS Academy*. [http://www.saasacademy.com/blog/how-to-calculate-annual-recurring-revenue]

69 Annualized revenue relies on the assumption that current subscribers will continue their subscriptions over time – which may or may not be a reasonable assumption.

70 This is neither the Maxian use-value nor exchange-value, as both are pinned to a necessary relationship between labor time and price. Value in the context of value-add is the retrospective enhousing of price within market perception or utility; value(-add) is the output to price's input.

71 In *99 Theses on the Revaluation of Value*, Brian Massumi makes a similar point, explaining that the driving force behind contemporary value creation looks more like connections, transitions, and the leveraging of relational dynamics, and less like isolated or intrinsic measures of worth: "a surplus-value [...] is an emergent effect that is relational: it comes of the singular way a multiplicity of contributory elements come together to spin off a collective effect. The effect has a quality of its own that it owes, genetically, to the qualitative differentials between its conditioning elements. But it does not reproduce those differences. It spins off into its own singular character." (Massumi, Brian. *99 Theses on the Revaluation of Value: A Postcapitalist Manifesto*, University of Minnesota Press, 2018, p. 99).

72 Or, put in a lovely way by Alexander Galloway: "[t]heories of immanence resist describing things "as" they are. Rather immanence identifies things "in" whatever they are." Galloway, Alexander R. "Immanence." *Culture and Communication*. [http://www.cultureandcommunication.org/galloway/immanence]

73 Leibniz, Gottfried Wilhelm. The Monadology. 1714, translated by Jonathan Bennett, Early Modern Texts, 2007. [http://www.earlymoderntexts.com/assets/pdfs/leibniz1714b.pdf] Or, alternatively, "[b]ut a soul can read in itself only that which is there represented distinctly; it cannot all at once unroll everything that is enfolded in it, for its complexity is infinite" – (Leibniz, Gottfried Wilhelm. The Monadology. 1714, translated by Robert Latta, The Leibniz Library, 2016, p. 10.) – or "[y]et the Baroque plait twists and turns its folds, pushing them to infinity, fold over fold, one upon the other. The Baroque fold unfurls all the way to infinity." (Deleuze, Gilles. *The Fold: Leibniz and the Baroque*. Athlone Press, 1993, translated by Tom Conley, p. 3.)

74 There is something intriguing about folds and complexity. If you take a material perspective, folds represent the accumulation of matter within a confined space, intensifying density through increasing layer compression. Yet folds can also represent the opposite: a prolapse or inward turn, where tension increases until it reaches a critical articulation that cycles back to its point of origin; mashed under an industrial compressor until a thing becomes raw material again, the compounding of material and the recursive return to the source, encapsulating complexity through layered self-reflection. Elsewhere in The Fold, Deleuze writes: "[f]olding-unfolding no longer simply means tension-release, contraction-dilation, but enveloping-developing, involution-evolution. The organism is defined by its ability to fold its own parts and to unfold them, not to infinity, but to a degree of development assigned to each species. Thus an organism is enveloped by organisms, one within another (interlocking of germinal matter), like Russian dolls. The first fly contains the seeds of all flies to come, each being called in its turn to unfold its own parts at the right time. And when an organism dies, it does not really vanish, but folds in upon itself, abruptly involuting into the again newly dormant seed by skipping all intermediate stages." *(The Fold, p. 9).*

75 "Foam, in its fleeting form, gives us the opportunity to observe the subversion of substance with our own eyes." Sloterdijk, Peter. *Foams: Spheres Volume III: Plural Spherology*. Translated by Wieland Hoban, Semiotext(e), 2016, p. 28.

76 "One Vendor. One Platform. Endless Value. Customer Success, Community, Education and Adoption technology—all on one platform." – "Gainsight." *Gainsight*. [http://www.gainsight.com/] – Gainsight provides a kind of automation layer on *top* of the data infrastructure of a tool like SFDC: "[t]he bi-directional Gainsight and Salesforce customer success integration centralizes your existing customer data to surface important insights and actions for your customers. Gainsight helps Salesforce users drive engagement by keeping customer data in one place and helping customer-owners be more productive to take the repetition out of your tasks." – "Salesforce Integration." *Gainsight*. [http://www.gainsight.com/integration/salesforce/] – Another example of this is Vivun, a tool built almost entirely around adding additional, scoped metadata (and UI enrichment) to SFDC, e.g. "Tired of the never-ending chore of tracking deals and entering data into systems not built to support the unique work of Sales Engineering? Bogged down by administrative tasks stealing your valuable time? Sick of cramming information into custom fields in Salesforce as an after-thought?" – "Why PreSales Teams Love Vivun." *Salesforce AppExchange*. [http://appexchange.salesforce.com/image_host/e0904c31-2c05-4bf2-983e-b9dc2ae36147.pdf]

77 So far, there is crazily little theoretical work done on whitelabeling or dropshipping practices, especially as they relate to the rise of adtech, adset budget optimization (ABO) tools, fully automated webstore generation and liquidation, etc...

78 Zapier calls themselves “the UI for your API” – *“What Is iPaaS?” Zapier*, 17 Mar. 2021. [https://zapier.com/blog/what-is-ipaas/]

79 e.g. “In computer science, abstraction is generally understood as a method that can tell what sort of information one can get from the observed system, what sort of questions are reasonable to ask in this regard, and what sort of answers one might, in principle, be able to get from it. Language abstraction, procedural abstraction, data abstraction: they all specify content, languages, modules, procedures, variables, as well as the consequent operations that can be performed upon them.” – Fazi, M. Beatrice. *Contingent Computation: Abstraction, Experience, and Indeterminacy in Computational Aesthetics*. Rowman & Littlefield International, 2018, p. 55.

80 “Undeniably, computational systems are formal axiomatic systems. This means that they involve a starting point that is self-evident and which defines the inferential steps that can be taken from it towards a result via the manipulation of a list of finite instructions.” (*Contingent Computation*, p. 98).

81 ““[I]ncompleteness in axiomatics is at the core of computation. These performing entities—algorithms—expose the internal inconsistencies of the rational system of governance, inconsistencies that correspond to the proliferation of increasingly random data within it.” – Parisi, Luciana. *Contagious Architecture: Computation, Aesthetics, and Space*. MIT Press, 2013, p. ix.

82 “[... I]ndeterminacy dwells at the logical heart of computation [and ...] this indeterminacy is not modelled upon empirical individualities and that it does not correspond to the virtual intensities of that which is lived. Instead, this indeterminacy is specific to the formal axiomatic procedures of computation and to the functional and ontological autonomy of the latter.” (*Contingent Computation*, pp. 205-206).

83 “How much flexibility there is in the axiomatic of capitalism, always ready to widen its own limits so as to add a new axiom to a previously saturated system!” Deleuze, Gilles, and Félix Guattari. *Anti-Oedipus: Capitalism and Schizophrenia*. Translated by Robert Hurley, Mark Seem, and Helen R. Lane, University of Minnesota Press, 1983, p. 238.

84 “Algorithmic cognition is central to today’s capitalism.” – Parisi, Luciana. “Instrumental Reason, Algorithmic Capitalism, and the Incomputable.” *Alleys of Your Mind: Augmented Intelligence and Its Traumas*, edited by Matteo Pasquinelli, Meson Press, 2015, p. 125.

85 “Slime mould *Physarum polycephalum* is a large single cell capable for distributed sensing, concurrent information processing, parallel

computation and decentralized actuation." – Adamatzky, Andrew, editor. *Advances in Physarum Machines: Sensing and Computing with Slime Mould*. Springer, 2016, p. v. – see also Tripaldi, Laura. *Parallel Minds: Discovering the Intelligence of Materials*. Urbanomic, 2022.

86 Patience!

87 This isn't *entirely* dependent on labor as a source of volatility in commodity production. There are lots of complexities in supply and demand that can also be artificially manipulated to induce volatility (e.g. the generation and management of artificial scarcity on behalf of the bought resource or the sold asset).

88 "The Black–Scholes formula, for example, refers to a model of financial markets which, although it did not correspond to the reality of finance at the time when it was first introduced (at the beginning of the 1970s), has become increasingly accurate as the formula has been used to guide operations. Reality adapted to the theory." – Esposito, Elena. *The Future of Futures: The Time of Money in Financing and Society*. Translated by Elena Esposito, with assistance from Andrew K. Whitehead, Edward Elgar, 2011. Originally published as *Il futuro dei futures: Il tempo del denaro nella finanza e nella società*, Edizioni ETS, 2009. *p. 97*. Hyperstition? Manifestation?

89 e.g. a stochastic process, a type of random motion.

90 This becomes a very literal random number generator when exploring the superliquid worlds of memecoins, bot markets, and dark pools.

91 e.g. *"From Humble Origins to Global Brand: A Brief History of IKEA." IKEA*. [http://www.ikea.com/us/en/this-is-ikea/about-us/from-humble-origins-to-global-brand-a-brief-history-of-ikea-pubad29a981]

92 "Ingvar Kamprad looked for an ownership structure that would ensure total independence and a long-term business perspective. He described this as trying to give the IKEA brand "eternal life." His solution was to separate the ownership of the retail operation from the IKEA concept and the IKEA brand to keep these separate roles in independent business groups, operating under a franchise system." *("From Humble Origins...")*

93 "IKEA currently works with 1,300 suppliers in 53 countries, but Kamprad made the pioneering decision to source furniture from communist Poland as early as 1961. Since manufacturing costs were 50% lower in Poland than in Sweden, his decision looks brilliant in hindsight. However, that decision, too, was an adaptation to market circumstances rather than an outgrowth of a formal strategic planning process." – Vermeulen, Freek. "The Experimental Roots of Revolutionary Vision." *MIT Sloan Management Review*, 11 Apr. 2018. [https://sloanreview.mit.edu/article/the-experimental-roots-of-revolutionary-vision/]

94 More about this in the final section of this book (Scale).

95 More about this in the fourth section of this book (The Last Mile of

Bones and Blood into the Earth).

96 Ned Rossiter's book *Software, Infrastructure, Labor* examines how logistical infrastructures facilitate the emergence of new layers of business management, highlighting the transformation of logistical systems into sophisticated mechanisms of global capital accumulation, serving as the "hidden abode" where surplus value is systematically extracted through intricate interconnections between software protocols, labor, and infrastructure. – Rossiter, Ned. *Software, infrastructure, labor: A media theory of logistical nightmares*. Routledge, 2016.

97 e.g. Hodal, Kate, Chris Kelly, and Felicity Lawrence. "Revealed: Asian Slave Labor Producing Prawns for Supermarkets in US, UK." *The Guardian*, 14 Dec. 2015. [https://www.theguardian.com/global-development/2014/jun/10/supermarket-prawns-thailand-produced-slave-labour]

98 e.g. Kelly, Annie. "Cobalt Mining in Congo: Miners Toil for 30p an Hour to Fuel Electric Cars." *The Guardian*, 8 Nov. 2021. [http://www.theguardian.com/global-development/2021/nov/08/cobalt-drc-miners-toil-for-30p-an-hour-to-fuel-electric-cars]

99 Haskel and Westlake's analysis in *Capitalism Without Capital: The Rise of the Intangible Economy* also points to the diminishing role of material media in contemporary capitalism. As intangible assets like software, branding, and intellectual property come to dominate the market, the physical substrates enabling their operation are relegated to constraints on speed, scalability, and efficiency, rather than serving as central determinants of value or function. See: Haskel, Jonathan and Westlake, Stian. *Capitalism Without Capital: The Rise of Intangible Economy.* Princeton University Press, 2018.

100 Qubein, Ramsey. "Delta Boarding Order Explained." *NerdWallet*, 6 Jan. 2023. [http://www.nerdwallet.com/article/travel/delta-boarding-order-explained]

101 See the absolutely excellent "America Diaries" 2024 miniseries from New Models, both the description of Diazepam Doris and the BWI DoubleTree and of the cement hellscape of BWI business district. In the latter of the two episodes, Caroline Busta specifically references the concept of lift, and her episode notes describe the phenomenon perfectly: "Throughout this trip, I would repeatedly confront the kind of extreme surface level incoherence that the BWI Business District evidences – which is to say an incoherence produced by a perfectly coherent logic at a more abstract layer of the system." New Models. *New Models Podcast*. "NM Dispatch: America Diaries August 2024, Part 1 (Lil Internet) & Part 2 (Caroline Busta)." August 14th & 29th, 2024.

102 Packham, Chris. "It's broken isn't it?" *X (Formerly Twitter)*, 26 June 2021. [http://x.com/ChrisGPackham/status/1409473721262280708]

103 We like Daniel Felstead's 'janky capitalism' here, e.g.: " [c]apitalism has

become janky for many reasons, one of them being the sloppy and frustrating interaction between online and offline life." "The Metaverse in Janky Capitalism." *Dis*, written and produced by Daniel Felstead, 3D animation by Jenn Leung. [http://www.dis.art/the-metaverse-in-janky-capitalism]

104 *"Dennis Takes a Mental Health Day." It's Always Sunny in Philadelphia*, season 16, episode 8, written by Ross Maloney, directed by Heath Cullens, FX, 19 July 2023.

105 "Airlines even sell points at above their exchange-rate valuation, meaning that people are paying for something worth less than the money they're buying it with, in part because it's so hard to know what the real value is." – Sitaraman, Ganesh. "Airlines Are Just Banks Now." *The Atlantic*, 21 Sept. 2023.

106 e.g. Eisen, David. "Blackstone Made a Fortune on Hilton. Is It the Last of the Hotel Megadeals?" *Hospitality Investor*, 26 June 2022. [http://www.hospitalityinvestor.com/investment/how-private-equity-giant-blackstone-became-real-estate-monolith]

107 e.g. "How Hilton Hotels Benefited from Franchising Model." *Page Twenty-One*, 22 Dec. 2021. [http://www.pagetwentyone.com/post/how-hilton-hotels-benefited-from-franchising-model]

108 e.g. "How Blackstone Made $14 Billion from Hilton LBO." *The Strategy Story*, 10 Apr. 2021. [http://www.thestrategystory.com/2021/04/10/blackstone-hilton-lbo/]

109 Bagli, Charles V. "Waldorf-Astoria to Be Sold in a $1.95 Billion Deal." *The New York Times*, 6 Oct. 2014. [https://www.nytimes.com/2014/10/07/nyregion/waldorf-astoria-hotel-to-be-sold-for-195-billion.html]

110 For the entertaining story – Martin, Timothy W., and Kathy Chu. "How Deal-Hungry Anbang Went from Waldorf to Woe." *Bloomberg*, 23 Feb. 2018. [http://www.bloomberg.com/news/articles/2018-02-23/how-deal-hungry-anbang-went-from-waldorf-to-woe-quicktake]

111 Karmin, Craig, and Kate King. "New York's Waldorf Astoria Hotel Finds a Rocky Path to Condo Conversion." *Wall Street Journal*, 2 May 2022. [https://www.wsj.com/real-estate/new-yorks-waldorf-astoria-hotel-finds-a-rocky-path-to-condo-conversion-11651492804]

112 Hilton claims it'll open the WANY next year, but these announcements have been ongoing with various delays for years – *"Waldorf Astoria New York to Reopen to Public in Spring 2025." Boutique Hotelier USA*, 10 Oct. 2024. [https://usa.boutiquehotelier.com/]

113 The absolutely bonkers story is here – "History." *SoftBank Group Corp.* [http://www.group.softbank/en/philosophy/history]

114 e.g. "History." *DHL Group*. [http://www.group.dhl.com/en/about-us/the-group/history.html]

115 "As a result, it surpassed its competition with analytics software and its capabilities to manage and analyze massive bodies of data. With a

$2 billion acquisition of SoftLayer, it caught up with cloud computing and extended its services to include cybersecurity. A partnership with Apple Computer offered the promise of portable computing and app development platforms lodged in cloud servers. Finally, IBM offered management consulting as much as software services through its social networking focus." – *"How IBM Became a Multinational Giant through Multiple Business Transformations." Cascade*. [http://www.cascade.app/studies/how-ibm-became-a-multinational-giant-through-multiple-business-transformations]

116 e.g. *"Philips Digital Transformation Position Paper." Philips*, 2021. [http://www.philips.com/c-dam/corporate/newscenter/global/standard/resources/healthcare/2021/digital-transformation/philips-digital-transformation-position-paper.pdf] See also 3M's spinoff medtech vehicle: Solventum.

117 See the absolutely bananas chart in this Deloitte report – *"Energy as a Service: The Future of Utilities?" Deloitte*, 2019. [http://www.deloitte.com/content/dam/assets-zone2/uk/en/docs/industries/energy-resources-industrials/2023/deloitte-uk-energy-as-a-service-report-2019.pdf] A prediction: renewable energy may arrive at scale sooner than we expect — it seems like it's easier to SaaS it than other forms of energy.

118 e.g. *"Carbon Markets." BP*. [http://www.bp.com/en/global/bp-trading-and-shipping/what-we-do/carbon-markets.html]

119 These companies are always identified with their relationship to the gig economy, but rarely for what they actually represent – lift, the movement from hardware to software, from one-time to recurring revenue (e.g. Uber One, Lyft Pink, or the "Amazon Prime subscription model" approach flirted with by Airbnb CEO Brian Chesky – Chase-Lubitz, Jesse. "Airbnb Considering an Amazon Prime-Like Membership as a Loyalty Program." *Skift*, 1 May 2024). [https://skift.com/2024/05/01/airbnb-considering-an-amazon-prime-like-membership-as-a-loyalty-program/]

120 "Don't own the website, own the platform people use to make their websites. Don't own the platform people use to make their websites, own the patents that the platforms people use to make their websites have to license. Don't own the patents, own the futures on the patents. Don't own the futures on the patents, own the derivatives on the futures on the patents." – Corey Doctorow, summarizing David Graeber in "Life Doesn't Have To Zuck." *Aufhebunga Bunga Podcast*, episode 362, 5 Sep. 2023. [https://aufhebungabunga.podbean.com/e/362-life-doesn-t-have-to-zuck/]

121 "Delta Air Lines announces December Quarter and Full Year 2023 Financial Results." *Delta Air Lines*, 12 Jan. 2024. [https://ir.delta.com/news/news-details/2024/Delta-Air-Lines-Announces-December-

Quarter-and-Full-Year-2023-Financial-Results/default.aspx] – see also the crazy claims here *"Delta Beyond 2023 Investor Day." Delta Air Lines*, 27 June 2023. [http://s2.q4cdn.com/181345880/files/doc_presentations/2023/06/27/Delta-Beyond-2023-Investor-Day-vF-6-26-23.pdf] – or, from the other side – "Driving Growth with Airline Ancillaries." *Mastercard Data & Services*, 2024. [https://www.mastercardservices.com/en/industries/airlines/insights/driving-growth-airline-ancillaries]

122 "The Economics of Frequent Flyer Programs: How Airlines Monetize Loyalty." *Atlys.com*, Atlys, 2024. [http://www.atlys.com/blog/frequent-flyer-programs-economics]

123 "Business travelers make up 12% of airline passengers, but they pay higher rates than other customers and are typically twice as lucrative, accounting for as much as 75% of profits." – The Investopedia Team. "How Much Airline Revenue Comes From Business Travelers?" *Investopedia*, updated 17 June 2024, reviewed by Thomas Brock, fact-checked by Betsy Petrick. [https://www.investopedia.com/ask/answers/041315/how-much-revenue-airline-industry-comes-business-travelers-compared-leisure-travelers.asp]

124 e.g. Leff, Gary. "American Airlines Loses Money Flying Passengers, Profit Comes From Selling Miles." *View from the Wing*, 22 July 2022. [https://viewfromthewing.com/american-airlines-loses-money-flying-passengers-all-profit-comes-from-selling-miles/] – analysis of: "American Airlines Reports Second-Quarter 2022 Financial Results." *American Airlines Newsroom*, 21 July 2022. [https://americanairlines.gcs-web.com/static-files/b50818b6-8d58-4118-a073-63d575d7af21]

125 e.g. Samunderu, E., J.K. Perret, and G. Geller. "The Economic Value Rationale of Fuel Hedging: An Empirical Perspective from the Global Airline Industry." *Journal of Air Transport Management*, vol. 106, Jan. 2023, 102324.

126 "Corporations in the United States and elsewhere seem increasingly to be becoming "financialized" in a sense additional to that of market value maximization. The use of derivatives to manage financial risks such as exchange-rate and interest-rate fluctuations is established, but corporations now also have available to them derivatives of a growing range of physical substances and processes: for example, oil and gasoline derivatives, natural gas derivatives, even weather derivatives." – MacKenzie, Donald. *An Engine, Not a Camera: How Financial Models Shape Markets*. The MIT Press, 2006. p. 262.

127 e.g. *"Key Trends in the Size and Composition of OTC Derivatives Markets in the Second Half of 2023." International Swaps and Derivatives Association (ISDA)*, 2023. [http://www.isda.org/a/9i8gE/Key-Trends-in-the-Size-and-Composition-of-OTC-Derivatives-Markets-in-the-Second-Half-of-2023.pdf]

128 e.g. "Algorithmic Trading Market - Growth, Trends, and Forecasts

(2023 - 2028)." *Mordor Intelligence*. [http://www.mordorintelligence.com/industry-reports/algorithmic-trading-market] – "Algorithmic Trading Market Size, Share, Outlook and Opportunity Analysis, 2018-2026." *Coherent Market Insights*. [http://www.coherentmarketinsights.com/market-insight/algorithmic-trading-market-2476] – "Global Algorithmic Trading Market to Surpass US$ 21685.53 Million by 2026." Business Wire, 5 Feb. 2019. [http://www.businesswire.com/news/home/20190205005634/en/Global-Algorithmic-Trading-Market-to-Surpass-US-21685.53-Million-by-2026] – "What Percentage of Trading Is Algorithmic?" *The Robust Trader*. [http://www.therobusttrader.com/what-percentage-of-trading-is-algorithmic/] – "What Percentage of Stock Trades Are Made by Bots and Algorithms?" *Benzinga*, 23 June 2023. [http://www.benzinga.com/general/topics/23/06/32861724/what-percentage-of-stock-trades-are-made-by-bots-and-algorithms]

129 "Ancient merchants developed novel and complex solutions to address the difficulties and risks in executing various arbitrage transactions. Because the two payments involved in the ancient bill of exchange were separated by distance and time, a network of agents, often bound together by family or tribal ties, was required to disburse and receive funds or goods in the different locations. [...] The merchant arbitrageur would offset the cost of purchasing goods given on consignment with payments from other merchants seeking to avoid the risks of carrying significant sums of money over long distances, making a local payment in exchange for a disbursement of the local currency in a different location. The basic cash-and-carry arbitrage is complicated by the presence of different payment locations and currency units. [etc...]" – Poitras, Geoffrey. "Arbitrage: Historical Perspectives." *Encyclopedia of Quantitative Finance*, edited by Rama Cont, Wiley, 2010. [http://www.sfu.ca/~poitras/EQF_ARB%24%24.pdf]

130 *("Arbitrage: Historical Perspectives").*

131 Malik, Suhail. "The Ontology of Finance: Price, Power, and the Arkhéderivative." *Collapse* Vol. VIII: *Casino Real*, edited by Robin MacKay, Urbanomic, 2014, pp.775-780.

132 *(Ontology of Finance*, p.776).

133 "A deferred differential, a differentiating deferral" – *(Ontology of Finance*, p. 688) = difference + deferral. Or, in Derrida's original attempt at an approximate semantic for a term that is not word nor a concept: "we know that the verb différer (Latin differre) has two meanings which seem quite distinct. In one of them it refers to the deferring of an action or a movement, to a delay, a detour, a relay, a temporization, or a postponement. The other sense of différer is the more common and identifiable one: to be not identical, to be other, discernible, etc... to classical strictures différance would be said to designate a constitutive, productive, and originary causality, the process of scission

and division which would produce or constitute different things or differences." – Derrida, Jacques. Margins of Philosophy. The Harvester Press, 1982, pp. 7-9.

134 "The realization that capital does not have a fixed 'physical' quantity set off a logical chain reaction with devastating consequences for neoclassical theory. It began by destroying the notion of a production function which, as we noted, requires all inputs, including capital, to have measurable quantities. This destruction then nullified the neoclassical supply curve, a derivative of the production function. And with the supply curve gone, the notion of equilibrium – the intersection between supply and demand – became similarly irrelevant. The implication was nothing short of dramatic: without equilibrium, neoclassical economics fails its two basic tasks of explaining and justifying prices and quantities." – Nitzan, Jonathan, and Shimshon Bichler. *Capital as Power: A Study of Order and Creorder*. RIPE Series in Global Political Economy, Routledge, 2009, p. 80.

135 "Constituted by their différantiation, differentiated terms 'detour' through one another to establish their quasi-positive but necessarily incomplete determination, a deferral of their self-identification that is a delaying or spacing (espacement) of any alleged selfpresence to itself, an 'itself' that therefore never arrives as such. The differentiated terms are only ever quasi-established because of the constitutive deferment of their distinct identities (qua plenitudinous presence)." *(Ontology of Finance,* pp. 688-689).

136 "As absolute, when the endogeneity of différantial pricing is extended to exogenous pricing processes external and putatively 'primary' in relation to derivative markets. It is with this last step that the derivatives pricing operations of financial markets are articulated with the a priori financiality of capitalization." *(Ontology of Finance,* p.694).

137 *(The Future of Futures, p. 107).*

138 Or from Max Haiven: "[r]esistance is ultimately factored into financial flows in advance as "risk": the present calculus of future probabilities. In addition to networked computers that allow global trades at super-human speeds, finance today enjoys new mathematical and cognitive apparatuses for manipulating risk: the cutting apart and rebundling of securities to diversify risk across holdings and portfolios, the automated trading of securities through complex risk-informed algorithms, and practically sublime "investment vehicles" and derivatives for "hedging," betting both for and against the market. With this hyper-commodification of risk, finance has become a vast, interconnected, pulsating organ fed by billions of local readings of "liquidity" and"resistance" which are constantly coursing through the system, being decomposed and rebundled in patterns which no one truly understands. The final result is this: finance as we now have it, as

a system that "reads" the world by calculating the "risk" of "resistance" to "liquidity" and allocating resources accordingly, already incorporates "resistance" into its "systemic imagination." – Haiven, Max. "Finance Depends on Resistance, Finance is Resistance, and Anyway, Resistance is Futile." *Mediations* 26, 2012. [https://mediationsjournal.org/articles/finance-depends-on-resistance]

139 "The key mechanism for the functioning of these self- referential virtual markets is not prices, and certainly not values, but the coordination of price differences provided by arbitrage. It does not assume any intrinsic value of the assets. It only observes and exploits the price differences – that is, entities that are internal to the dynamics of the markets. If the same asset has different prices in different markets, arbitrageurs buy it at the lower price and resell it at the higher price, making profits, and, in the midterm, they balance the markets. The assumption of arbitrage makes it possible to think that markets are ordered, even without an external reference, because any imbalances are deleted by the simple dynamic of markets, which exploits the differences in prices in order to generate profits, thereby eliminating them. The cornerstone of the functioning of capital markets and of risk management markets, arbitrage, in its standard description, does not require capital (which can be obtained with short-sales) and does not entail risks. This sounds paradoxical, and, like almost all key mechanisms, arbitrage actually has a paradoxical foundation, because it works best when it is absent." *(The Future of Futures, p. 117).*

140 *(The Future of Futures, p. 108).*

141 e.g. "BlackRock Gets in Line for the Elusive ETF Share Class." *InvestmentNews*, 31 Oct. 2023. [http://www.investmentnews.com/etfs/blackrock-gets-in-line-for-the-elusive-etf-share-class/258014] – there's a great quote in here: "BlackRock is kind of like an 'everything to everyone.'"

142 Man, Maya. "The Artist Is Online." *Outland*, 2 Apr. 2024. [https://outland.art/maya-man-digital-performance-art/]

143 A 2023-24 study famously asserts that 7% of the American workforce consists of full-time influencers, at 12 million workers. Keller Advisory. *Creators Uncovered: Insights from a Nationally Representative Study of U.S. Creators*. Keller Advisory. [https://www.keller-advisory.com/creators-uncovered-insights-from-a-nationally-representative-study-of-uscreators]

144 Bishop, Sophie. "Influencer Creep." *Real Life*, 9 June 2022. [http://www.reallifemag.com/influencer-creep/] See also: Bishop, Sophie. "Influencer Creep: How Artists Strategically Navigate the Platformisation of Art Worlds." *New Media & Society*, vol. 26, no. 1, 2024, pp. 3–20. – The designer of "cult" NY fashion brand Ilana Kohn describes the respective priority of establishing and maintaining

visibility as a struggle that ultimately contributed to the closure of her brand: “[i]t felt like screaming into a black hole, working so hard to push out product that isn’t being seen.” – “A Quick Interview with the New York Times.” *Deal Town*, Ilana Kohn. [http://www.deal.town/ilana-kohn/a-quick-interview-with-the-new-york-times-PKCQ2GW4J3CC]

145 The dynamics of social media attention-maintenance literally pushes producers toward affiliate marketing: “[i]n these exchanges, the brand takes on one of the following roles: brand as lifestyle bait, which involves a mutual exchange of aspiration between artist and brand; brand as platform, where the brand provides the artist access to a much larger audience; and brand as rainmaker, in which the brand sponsors or commissions works of a scale and production budget that the artist otherwise couldn’t access.” – Yago, Dena. “Content Industrial Complex.” *e-flux Journal*, no. 89, Mar. 2018. [http://www.e-flux.com/journal/89/181611/content-industrial-complex/]

146 From Adanov, Lenard. “How to Become a LinkedIn Top Voice.” *LinkedIn*, 13 Mar. 2024. [http://www.linkedin.com/pulse/how-become-linkedin-top-voice-lenard-adanov-myfcf/] – “There are 2 types of Top Voices - the Golden Badges denote people who are specialized in a specific industry or topic and it showcases them as Thought Leaders. The second type are the Blue Badges which only say Top Voice. These are selected to my knowledge only once a year by LinkedIn Moderators and are invitation-only! They are extremely hard to get and boost the profiles of those members who get them by serious margins in Profile Views. To get this, you need to (according to LinkedIn): Provide Value. Be Timely. Invite Conversation. Be Relatable. Get to the point!”

147 e.g. fashion resale – Nguyen, Andrew. “Has the Sneaker Bubble Finally Burst?” *Vogue Business*, 26 Oct. 2023. [http://www.voguebusiness.com/fashion/has-the-sneaker-bubble-finally-burst]

148 Software tools that automatically set the amount of ad spend based on the ad performance – if an ad does well, give it more money, if it does poorly, stop funding it. “Meta Advantage campaign budget (formerly campaign budget optimization) automatically manages your campaign budget across ad sets to get you the overall best results. With Advantage campaign budget, you set one central campaign budget. This budget continuously distributes in real time to ad sets with the best opportunities, throughout the course of your campaign.” “About Campaign Budget Optimization.” *Facebook Business Help Center*. [http://www.facebook.com/business/help/153514848493595]

149 It feels like there could be something impish to say about the preponderance of SaaS platforms that resemble adverbs or contain verb-forming suffixes (-ly, -ify) and the concept of the value-added node (do your thing, but *this way*).

150 “We help publishers like you find relevant retailer partners to promote,

track which transactions earn commissions, provide easy-to-interpret reporting, and most importantly, pay out your earnings on time each month." – "Affiliate Solutions." *ShareASale*. [http://www.shareasale.com/info/affiliates/#solutions]

151 The final chunk of this book is devoted to the experience and economic contingency of what we call 'last-mile labor', workers who exist on the other side of lift.

152 Wood, Ellen Meiksins. *The Origin of Capitalism: A Longer View*. Verso, 2002, p. 96.

153 After all, those "bodies are just glutinated time" anyways. – Moynihan, Thomas. *Spinal Catastrophism: A Secret History*. Urbanomic, 2019, p. 126.

154 Wark, McKenzie. *Capital Is Dead*. Verso, 2019, p. 142.

155 Graeber, David. *Debt: The First 5,000 Years*. Melville House, 2011, p. 40.

156 "Operators possess only scattered, and often contradictory, fragments of knowledge. Nobody masters all the information that is required in order to decide in a competent and motivated way. The problem of the economy is not only how to allocate resources, but also how to distribute and use knowledge, given that everyone, with only limited data, must still make decisions. These decisions are based on people's orientation to prices. If prices were fixed by a tendentially perfect market, this market would use all the dispersed and diffused information in a coordinated way, and this limited knowledge would be sufficient to guarantee the optimal use for all knowledge and information." *(The Future of Futures, p. 64).*

157 "[D]erivatives are tools located at the second order of observation: they vary on the basis of variations, not in reference to the world." *(The Future of Futures, p. 108).*

158 "Do not let us go back to a fictitious primordial condition as the political economist does, when he tries to explain. Such a primordial condition explains nothing; it merely pushes the question away into a grey nebulous distance. The economist assumes in the form of a fact, of an event, what he is supposed to deduce – namely, the necessary relationship between two things – between, for example, division of labor and exchange. Thus the theologian explains the origin of evil by the fall of Man – that is, he assumes as a fact, in historical form, what has to be explained." – Marx, Karl. "Estranged Labor." *Economic and Philosophic Manuscripts of 1844*. Written between April and August 1844, first published 1932. Progress Publishers, 1959. Translated by Martin Milligan, revised by Dirk J. Struik. *Marx/Engels Gesamtausgabe*, Abt. 1, Bd. 3. Transcribed by Andy Blunden, 2000, and proofed by Matthew Carmody, 2009, p. 28.

159 *("Estranged Labor," p. 28).*

160 Chow, Andrew, and Chad De Guzman. "A Crypto Game Promised to Lift Filipinos out of Poverty. Here's What Happened Instead." *Time*, 25 July 2022. [http://time.com/6199385/axie-infinity-crypto-game-philippines-

debt/]

161 "Smooth Love Potion Price Today, SLP to USD Live, Marketcap and Chart." *CoinMarketCap*. [http://coinmarketcap.com/currencies/smooth-love-potion/]

162 *("A Crypto Game...").*

163 Craig, Tim, and B. Weiss. "Axie Infinity Founder Wants Everyone to Work in His Games: It's 'Not Dystopian.'" *DL News*, 19 Sept. 2024. [http://www.dlnews.com/articles/web3/axie-infinity-founder-defends-play-to-earn-crypto-gaming/]

164 Thanks to Jay Springett for this observation.

165 George, Kevin. "The Largest Cryptocurrency Hacks so Far." *Investopedia*, 17 Nov. 2022. [http://www.investopedia.com/news/largest-cryptocurrency-hacks-so-far-year/]

166 "Back to Building: Ronin Security Breach Postmortem." *Ronin Blog*, 2022. [http://roninchain.com/blog/posts/back-to-building-ronin-security-breach-6513cc78a5edc1001b03c364]

167 e.g. Lopatto, Elizabeth. "The Big Boys Want in on Crypto, Too." *The Verge*, 3 Oct. 2024. [http://www.theverge.com/2024/10/3/24261453/paypal-visa-blockchain-stablecoins] – incl.: Dresch, Jackie. "Visa Introduces the Visa Tokenized Asset Platform." *BusinessWire*, 3 Oct. 2024. [http://www.businesswire.com/news/home/20241003550660/en/Visa-Introduces-the-Visa-Tokenized-Asset-Platform/] – Smith, Paige. "PayPal Completes Its First Business Transaction Using Stablecoin." *Bloomberg.com*, Bloomberg, 3 Oct. 2024. [http://www.bloomberg.com/news/articles/2024-10-03/paypal-completes-its-first-business-transaction-using-stablecoin?sref=M8H6LjUF&embedded-checkout=true]

168 *("The Big Boys").* See also: Kharif, Olga, and Paige Smith. "Guarding Crypto Is a Lucrative Business and Wall Street Wants In." *Bloomberg.com*, Bloomberg, 14 Sept. 2024. [http://www.bloomberg.com/news/articles/2024-09-14/guarding-crypto-is-a-lucrative-business-and-wall-street-wants-in?sref=M8H6LjUF&embedded-checkout=true]

169 George, Emily. "Building a Crypto Flash Loan Arbitrage Bot: Step-By-Step Development Insights." *Medium*, Coinmonks, 12 Aug. 2024. [http://medium.com/coinmonks/building-a-crypto-flash-loan-arbitrage-bot-step-by-step-development-insights-33a28353b3bf]

170 Here is the MLA citation: Redman, Jamie. "An AI Bot Worth Millions? The Unbelievable Story of Truth Terminal and GOAT." *Bitcoin News*, 27 Oct. 2024. [http://news.bitcoin.com/an-ai-bot-worth-millions-the-unbelievable-story-of-truth-terminal-and-goat/]

171 e.g. "After all, there is hardly any doubt that kettles 'boil' water, knifes [sic] 'cut' meat, baskets 'hold' provisions, hammers 'hit' nails on the head, rails 'keep' kids from falling, locks 'close' rooms against uninvited visitors, soap 'takes' the dirt away, schedules 'list' class sessions, prize tags 'help' people calculating, and so on. Are those verbs not

designating actions? How could the introduction of those humble, mundane, and ubiquitous activities bring any news to any social scientist?" – Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford University Press, 2005, p. 71.

172 "Performative accounts that social and political theorists have offered focus on the productive nature of social practices and human bodies. By contrast, agential realism takes account of the fact that the forces at work in the materialization of bodies are not only social, and the bodies produced are not all human. Crucially, I argue that agential realism clarifies the nature of the causal relationship between discursive practices and material phenomena." – Barad, Karen. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press, 2007, pp. 33-34.

173 Mackay, Robin, Luke Pendrell, and James Trafford, editors. *Speculative Aesthetics*. Urbanomic, 2014, p. 2.

174 e.g. "Pinning down precisely what it is to be 'speculative' is a tricky gambit that is fraught with the danger of rerouting thinking into metaphor-based metaphysics." – James Trafford's "Towards a Speculative Rationality" *(Speculative Aesthetics, p. 55).*

175 "[W]here all actions, including not acting, contribute directly to the growing instability and complexity of the overall situation, where enormous catastrophes and fleeting butterfly effects alike contribute indubitably yet uncertainly to the outcome, whatever that might be." – Seguin, Robert. "Nature is What Hurts." *Electronic Book Review*, 7 Feb. 2016. [https://electronicbookreview.com/publications/nature-is-what-hurts/]

176 Perhaps a "lavalampy adherent of the Deleuzian underground," to invoke Graham Harman – Harman, Graham. "Who Wrote This?" *Object Oriented Philosophy* (blog), 11 Jan. 2011. [http://doctorzamalek2.wordpress.com/2011/01/11/who-wrote-this/]

177 *(Anti-Oedipus, p. 153).*

178 *(Anti-Oedipus, p. 140).*

179 *(Anti-Oedipus, p. 33).*

180 *(Anti-Oedipus, p. 9).*

181 Land, Nick. "Machinic Desire." *Fanged Noumena: Collected Writings 1987-2007*, edited by Robin Mackay and Ray Brassier, Urbanomic and Sequence Press, 2011, p. 320.

182 VanderMeer, Jeff. *Shriek: An Afterword*. Tor Books, 2006, pp. 75-76.

183 *(Anti-Oedipus, p. 8).*

184 *(Anti-Oedipus, p. 8).*

185 *("Meat" in Fanged Noumena, p. 414).*

186 Cybernetic Culture Research Unit (CCRU). "Swarmachines." *Abstract Culture (Swarms 1–3) and Selections from Digital Hyperstition*, edited by Peter Heft, Miskatonic Virtual University Press, originally published

1997, p. 62.

187 *("Machinic Desire" in Fanged Noumena, p. 338).*

188 *("Machinic Desire" in Fanged Noumena, p. 339).*

189 *("Meltdown" in Fanged Noumena, p. 447).*

190 Kronic, Maya B. "Nick Land: An Experiment in Inhumanism." *ReadThis.WTF*, 2012. [https://readthis.wtf/writing/nick-land-an-experiment-in-inhumanism/]

191 *("Nick Land: An Experiment in Inhumanism").*

192 "The matrix, body without organs, or abstract matter is a planetary-scale artificial death - Synthanatos - the terminal productive outcome of human history as a machinic process, yet it is virtually efficient throughout the duration of this process, functioning within a circuit that machines duration itself. In this way virtuality lends its temporality to the unconscious, which escapes specification within extended time series, provoking Freud to describe it as timeless." – *("Machinic Desire" in Fanged Noumena, p. 326).*

193 *("Machinic Desire" in Fanged Noumena, p. 331 – here referencing Freud directly).*

194 M. Beatrice Fazi casually and respectfully asserts that "Deleuze didn't really understand computers" – *"Computation is Computation"* with M. Beatrice Fazi. *Disintegrator*, episode 17, hosted by Marek Poliks and Roberto Alonso Trillo, 2024. [https://podcasts.apple.com/au/podcast/17-computation-is-computation-w-m-beatrice-fazi/id1716416573?i=1000665938719]

195 *("Cybergothic" in Fanged Noumena, p. 346).*

196 We are reminded of Reza Negarestani's critique of both antihumanism (e.g. Land) and posthumanism (e.g. the post-Deleuzian project of generalized relationism) as insufficiently deflationary of the ontological position of the human – and, in their failure to produce this initiatory deflation, the result is a mess of anthropocentric theology. Hardly the hard nihilism one might expect of Land at all! – *"Human is Not a Thing"* with Reza Negarestani. *Disintegrator*, episode 1, hosted by Marek Poliks and Roberto Alonso Trillo, 2023. [https://podcasts.apple.com/au/podcast/1-human-is-not-a-thing-w-reza-negarestani/id1716416573?i=1000634684329]

197 *("Cybergothic" in Fanged Noumena, p. 347).*

198 *("Cybergothic" in Fanged Noumena, p. 367).*

199 *("Cybergothic" in Fanged Noumena, p. 370).*

200 "There are no desiring-machines that exist outside the social machines that they form on a large scale; and no social machines without the desiring-machines that inhabit them on a small scale." – *(Anti-Oedipus, p. 340).*

201 She continues: "This also means that the algorithm-to-algorithm phase transition does not simply remain another example of the

technocapitalist instrumentalization of reason, but more subtly reveals a realization of a second nature in the form of a purposeless and automated intelligence. If algorithmic automation no longer corresponds to the execution of instructions, but to the constitution of a machine ecology infected with randomness, then one can suggest that neither technocapitalism nor the critique of technocapitalism can contain the tendency of the automated processing of randomness to overcome axiomatic truths." – *("Instrumental Reason," p. 136).*

202 Varoufakis, Yanis. *Technofeudalism: What Killed Capitalism*. Verso, 2023, p. 117.

203 If anyone, Peter Thiel feels like a far better example of a technofeudal architect, someone specifically animated by right-accelerationist discourse (e.g. Curtis Yarvin, late Nick Land).

204 Gane, Nicholas. "Capitalism Is Capitalism, Not Technofeudalism." *Journal of Classical Sociology*, vol. 0, no. 0, 2024. [https://doi.org/10.1177/1468795X241269293]

205 Berardi, Franco "Bifo." *Precarious Rhapsody: Semiocapitalism and the Pathologies of the Post-Alpha Generation*. Edited by Erik Empson and Stevphen Shukaitis, translated by Arianna Bove, Erik Empson, Michael Goddard, Giuseppina Mecchia, Antonella Schintu, and Steve Wright, Minor Compositions, 2009.

206 e.g. Zouboulakis, Michel. "On Technofeudalism: What Killed Capitalism? An Interview with Yanis Varoufakis." *Economic Thought*, vol. 11, no. 2, 2023, pp. 25–30.

207 Zuboff, Shoshana. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. PublicAffairs, 2019.

208 Jameson, Fredric. *Postmodernism, or, The Cultural Logic of Late Capitalism*. Duke University Press, 1991.

209 *(Anti-Oedipus, p. 252).*

210 e.g. "all this implies social organs of decision, administration, reaction, inscription; a technocracy and a bureaucracy that cannot be reduced to the operation of technical machines. In short, the conjunction of the decoded flows, their differential relations, and their multiple schizzes or breaks require a whole apparatus of regulation whose principal organ is the State." *(Anti-Oedipus, pp. 251-252).*

211 e.g. Ellis, David. "Citi Dodges Bullet." *CNN Business*, 23 Nov. 2008. [https://money.cnn.com/2008/11/23/news/companies/citigroup/index.htm]

212 e.g. Andrews, Edmund. "U.S. Takes Control of Fannie and Freddie." *The New York Times*, 7 Sept. 2008. [https://www.nytimes.com/2008/09/07/business/worldbusiness/07iht-treasury.4.15955496.html] – or Isidore, Chris. "Mortgage Bailout Now Profitable for Taxpayers." *CNN Business*, 21 Feb. 2014. [https://money.cnn.com/2014/02/21/news/economy/fannie-profit-bailout/index.html]

213 e.g. Twight, Charlotte. “Dodd–Frank: Accretion of Power, Illusion of Reform.” *The Independent Review*, vol. 20, no. 2, Fall 2015, pp. 197-226.

214 e.g. Sanders, Bernie. “To Rein In Wall Street, Fix the Fed.” *The New York Times*, 23 Dec. 2015. [http://www.nytimes.com/2015/12/23/opinion/bernie-sanders-to-rein-in-wall-street-fix-the-fed.html]

215 e.g. Nishimura, Kyohiko G., and Yuko Kawamoto. “Why Does the Problem Persist? ‘Rational Rigidity’ and the Plight of the Japanese Banks.” *Japan’s Lost Decade: Origins, Consequences, and Prospects for Recovery*, edited by Gary R. Saxonhouse and Robert M. Stern, University of Michigan, 2002, pp. 21-44.

216 Streeck, Wolfgang. *Buying Time: The Delayed Crisis of Democratic Capitalism*. Verso, 2014.

217 e.g. “Aadhaar Data Bust Raises Fresh Safety and Privacy Concerns.” *The New Indian Express*, 2 Nov. 2023. [https://www.newindianexpress.com/opinions/editorials/2023/Nov/02/aadhaar-data-bust-raises-fresh-safety-and-privacy-concerns-2629475.html]

218 e.g. Prasad, Aryamala. “Unintended Consequences of GDPR.” *Regulatory Studies Center*, George Washington University, 3 Sept. 2020. [https://regulatorystudies.columbian.gwu.edu/unintended-consequences-gdpr] – for an example of the SaaS-ification of the compliance industry, see e.g. Neverkovets, Anastasiia. “Top 11 Software Tools for GDPR Compliance in 2024.” *GrowthDot*, 1 May 2024. [https://growthdot.com/gdpr-compliance-software-tools/]

219 *(Buying Time, p. viii*). This is what we call the ‘Frankfurt School virus’ – that crisis is an invariable component of capitalism.

220 “Consequently, they are subject to the logic of the economic crisis as expressed in the law of the tendential fall of the rate of profit. [...]. But since the crisis tendency is still determined by the law of value—that is, the structurally necessary asymmetry in the exchange of wage labor for capital—the activity of the state cannot compensate for the tendency of the falling rate of profit. It can at best mediate it, that is, itself consummate it by political means.” Habermas, Jürgen. *Legitimation Crisis*. Translated by Thomas McCarthy, Polity Press, 1988, p. 45-46.

221 “Finally, the relations of production are altered because the replacement of exchange relations by administrative power is linked to a condition in which legitimate power must be available for administrative planning. Functions that have accrued to the state apparatus in advanced capitalism and extension of administratively processed social matters increase the need for legitimation. There is no question here of some mysterious magnitude; the need for legitimation arises from evident functional conditions of an administrative system that steps into functional gaps in the market. [...] New legitimation problems cannot be subsumed under a too generalized imperative of self-maintenance, as they cannot be solved without regard to the

satisfaction of legitimate needs—that is, to the distribution of use values—while the interests of capital realization prohibit precisely this consideration. Legitimation problems cannot be reduced to problems of capital realization. Because a class compromise has been made the foundation of reproduction, the state apparatus must fulfill its tasks in the economic system under the limiting condition that mass loyalty be simultaneously secured within the framework of a formal democracy and in accord with ruling universalistic value systems. These pressures of legitimation can be mitigated only through structures of a depoliticized public realm." *(Legitimation Crisis, p. 58).*

222 Habermas' *Legitimation Crisis* was originally published in 1973, one year after *Anti-Oedipus*. The concept of the legitimation crisis reappears, albeit slightly transformed, in Lyotard's *Postmodern Condition:* "The decision makers, however, attempt to manage these clouds of sociality according to input/output matrices... In matters of social justice and of scientific truth alike, the legitimation of that power is based on optimizing the system's performance-efficiency. The application of this criterion to all of our games necessarily entails a certain level of terror, whether soft or hard: be operational (that is, commensurable) or disappear." – Lyotard, Jean-François. *The Postmodern Condition: A Report on Knowledge*. Translated by Geoff Bennington and Brian Massumi, University of Minnesota Press, 1984, p. xxiv.

223 Is capitalism the suicidal actor here, per Land, or is it actually the state – so humbled by its own responsibility that it guts itself in public, carrying out a frenzy buried within itself since the dawn of systematized agriculture?

224 Certainly we are overindexing on the American state, a nation-state with a famous paraphilia for playing with its own viscera – but examples of privatization elsewhere are littered consistently throughout this book. There does exist a general tendency to identify the American state of affairs as somehow distinct or uniquely perverse, while somehow also simultaneously acknowledging the American state of affairs as generally determinative of short-term global social structures by virtue of its imperialism (e.g. 'spreading democracy' in Afghanistan, Iraq, Libya, or Venezuela) and its established economic primacy (for now). In general, we hold firm to the depreciation of the nation state as a primary actor, especially later in the book, by pointing to the nonscalarity of empire and the emergence (e.g. via Benjamin Bratton's 'stack model') of different scalar constitutions of sovereignty enabled by planetary-scale computation and distributed global supply chains.

225 e.g. the "profound crisis of social reproduction" referenced throughout the work of Silvia Federici – Carlin, Matthew, and Silvia Federici. "The Exploitation of Women, Social Reproduction, and the Struggle against Global Capital." *Theory & Event*, vol. 17, 2014.

226 e.g. *The Low-Wage Drag on Our Economy: Wal-Mart's Low Wages and Their Effect on Taxpayers and Economic Growth*. Democratic Staff of the U.S. House Committee on Education and the Workforce, 2013. [https://democrats-edworkforce.house.gov/download/the-low-wage-drag-on-our-economy-wal-marts-low-wages-and-their-effect-on-taxpayers-and-economic-growth]

227 e.g. Schulte, Fred, and Holly K. Hacker. "The Medicare Advantage Influence Machine." *KFF Health News*, 30 Sept. 2024. [https://kffhealthnews.org/news/article/medicare-advantage-cms-overcharges-lobbying-unitedhealth-lawsuit/] – Caffrey, Mary. "Insurers' AI Denials of Postacute Care Face Senate Scrutiny." *The American Journal of Managed Care*, Oct. 2024. [https://www.ajmc.com/view/insurers-ai-denials-of-postacute-care-face-senate-scrutiny] – *Ongoing Scrutiny of Medicare Advantage Plans.* Center for Medicare Advocacy, 13 July 2023. [https://medicareadvocacy.org/ongoing-scrutiny-of-medicare-advantage-plans/]

228 e.g. Albornoz, Luis A., Núria Almiron, and Ana I. Segovia. *Grupo Prisa: Media Power in Contemporary Spain*. Taylor & Francis, 2021.

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233 Fisher, Mark. *Ghosts of My Life: Writings on Depression, Hauntology and Lost Futures*. Zero Books, 2014, p. 24.

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banks-cashing-food-stamps/]

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239 *"Fidelity National Information Services (FIS) - Market Capitalization." CompaniesMarketCap.* [https://companiesmarketcap.com/fidelity-national-information-services/marketcap/]

240 Dickerson, Matthew. "The Percentage of Americans on Food Stamps Has Doubled since 2001." *EPIC for America*, 16 May 2024. [https://epicforamerica.org/social-programs/the-percentage-of-americans-on-food-stamps-has-doubled-since-2001/]

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242 Or, indirectly, the sun. We like how Reza Negarestani interprets the 'solar economy' of Bataille and Land: "The interiority of life on Earth rests on the thermo-nuclear interiority of the Sun which itself is contingent upon its exterior cosmic backdrop. Solar capitalism is only a market for representing the Sun as both an inevitable and unfathomably rich exteriority for the planet and terrestrial life, marketing the energetic model of the Sun as the only way to the great outdoors of the abyss. [...] In line with the vitalistically pluralist and thanatropically monist regime of solar economy, Earth can be reinvented and recomposed only as a new planet or slave of the Sun whose life and death are emphatically determined by its star or exorbitant source of energy." – Negarestani, Reza. "Solar Inferno and the Earthbound Abyss." *Our Sun*, edited by Salvatore Lacagnina, Mousse Publishing, 2010, p. 6.

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244 Pick any of the thousands of studies wherever you like, here's a classic from the USA: Kochhar, Rakesh. "The State of the American Middle Class." *Pew Research Center*, 31 May 2024. [http://www.pewresearch.org/race-and-ethnicity/2024/05/31/the-state-of-the-american-middle-class/]

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operations, embracing lean methodologies, and fostering a culture of continuous improvement are critical for maintaining agility and competitiveness." Perapras, Johny. "The Nokia and Kodak Collapse: Unmasking the Invisible Fault Lines That Can Topple Giants." *LinkedIn*, 26 Feb. 2024. [https://www.linkedin.com/pulse/nokia-kodak-collapse-unmasking-invisible-fault-lines-can-perapras-crswc/]

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256 "This tendency is being carried further and further, to the point that

capitalism with all its flows may dispatch itself straight to the moon: we really haven't seen anything yet!" – *(Anti-Oedipus, p. 34).*

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266 Johnson, Kristin N. "Regulating Innovation: High Frequency Trading in Dark Pools." *The Journal of Corporation Law*, vol. 42, no. 4, 2017, p. 864. As a sidenote, the players in and table-runners of dark pools

are some of the largest firms in the game Barclays, Credit Suisse, etc...). HFT agents continue to try and intervene in these spaces in increasingly creative ways.

267 *(Capital: A Critique of Political Economy. Vol. 1, p. 875).*

268 *(Caliban and the Witch, p. 12).*

269 *(Caliban and the Witch, p. 12).*

270 *(Capital: A Critique of Political Economy. Vol. 1, 718).*

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277 *(Anti-Oedipus, p. 195).*

278 *(The Wretched of the Earth, p. 38).*

279 *(Anti-Oedipus, p. 154).*

280 *(Anti-Oedipus, 254).*

281 e.g. Blanchet, Thomas, and Clara Martínez-Toledano. "Wealth Inequality Dynamics in Europe and the United States: Understanding the Determinants." Journal of Monetary Economics, vol. 133, 2023, pp. 25–43.

[https://doi.org/10.1016/j.jmoneco.2022.11.010]

282 *(Anti-Oedipus, 254).*

283 This isn't *not* true – take for example the extent to which daily life of Elon Musk, the world's richest man, is subordinated to the continued accumulation of capital across a massive matrix of ventures.

284 "The originality of the colonial context is that economic reality, inequality, and the immense difference of ways of life never come to mask the human realities. When you examine at close quarters the colonial context, it is evident that what parcels out the world is to begin with the fact of belonging to or not belonging to a given race, a given species. In the colonies the economic substructure is also a superstructure. The cause is the consequence; you are rich because you are white, you are white because you are rich. This is why Marxist analysis should always be slightly stretched every time we have to do with the colonial problem.

Everything up to and including the very nature of precapitalist society, so well explained by Marx, must here be thought out again. The serf is in essence different from the knight, but a reference to divine right is necessary to legitimize this statutory difference. In the colonies, the foreigner coming from another country imposed his rule by means of guns and machines. In defiance of his successful transplantation, in spite of his appropriation, the settler still remains a foreigner. It is neither the act of owning factories, nor estates, nor a bank balance which distinguishes the governing classes. The governing race is first and foremost those who come from elsewhere, those who are unlike the original inhabitants, "the others." *(The Wretched of the Earth, 40).*

285 *(The Wretched of the Earth, 15).*

286 "Huge tracts had been assigned to logging companies, mining companies, and pulp-and-paper as well as oil palm plantation companies. The military played an important role in transferring these tracts from previous residents to their corporate owners; military men also took their own interest in resources. This seminal period has shaped the wildness of the twenty-first century." Tsing, Anna Lowenhaupt. *Friction: An Ethnography of Global Connection*. Princeton University Press, 2005. p. 29.

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move according to some predictable logic. Understanding the realism at the core of the state of affairs feels like a necessary first step to a politics.

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352 *(Typhoo Modern Slavery Statement, p. 6).*

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354 Keyes, Os. “It Doesn’t Make Sense to Treat Facebook like a Public Utility.” *WIRED*, 11 Jan. 2022. [https://www.wired.com/story/facebook-public-utility-regulation/]

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loom-for-17k-workers-despite-recent-end-of-7-week-strike-debt-washington-state-everett-renton-local-economy-ceo-kelly-ortberg-employee-report-losses].

371 Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi, University of Minnesota Press, 1987, pp. 351-352.

372 "restlessly eroding it, gnawing at the consolidated borders of the State." – Negarestani, Reza. "The Militarization of Peace: Absence of Terror or Terror of Absence?" *Collapse*, vol. 1, edited by Robin Mackay, Urbanomic, 2007, pp. 53-92.

373 *(A Thousand Plateaus, p. 355).*

374 Parikka again: nation states are "hallucinated into being" as "after all, imagined communities are about all sorts of techniques of scale that create fabricated illusions of coherent unity," we are thus left to navigate a "landscape of shifting fiducial markers in simulated enclosures that are located in the real of planetary and inter-planetary energies." – Janša, Janez F., and Nóra Ó Murchú. A Short Incomplete History of Technologies that Scale. Ljubljana: Aksioma, 2023, p. 23.

375 *("The Militarization of Peace," p. 74).* This in no way represents Negarestani's perspective, we are instead distending the "'guerilla-state' and its connection with ethnonationalism in Iran or the Bedouin nomad-tribes and their strong but ambiguous bonds with the Saudi government in Saudi Arabia" to be actually a generic condition of most modern states.

376 Throughout *A Thousand Plateaus*, empire is a thing of the past: "the "megamachine," or the apparatus of capture, the archaic empire" *(A Thousand Plateaus, p. 444)*, always invoking ancience – "[t]he great empires of the Orient, Africa, and America run up against wide-open smooth spaces that penetrate them and maintain gaps between their components" *(A Thousand Plateaus, p. 385)* – "[t]he more discoveries archaeologists make, the more empires they uncover" *(A Thousand Plateaus, p. 360)* – "the Scythians, [...] the Hindus, Persians, and Arabs, [...], the Chinese empire of the Ch'in and Han dynasties *(A Thousand Plateaus, p. 404)* – etc...

377 Hardt, Michael, and Antonio Negri. *Empire*. Harvard University Press, 2000, p. 327.

378 *(Empire, p. 70).*

379 *(Empire, p. 87).*

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384 e.g. McKernan, Bethan, and Harry Davies. "'The Machine Did It Coldly': Israel Used AI to Identify 37,000 Hamas Targets." *The Guardian*, 3 Apr.

2024, [https://www.theguardian.com/world/2024/apr/03/israel-gaza-ai-database-hamas-airstrikes].

385 Always good to remember the last military action the US took as it abandoned Afghanistan was a random drone strike that killed 10 civilians; a great example of randomness in the face of technicity: e.g. Savage, Charlie, et al. "Newly Declassified Video Shows U.S. Killing of 10 Civilians in Drone Strike." *The New York Times*, 19 Jan. 2022. [https://www.nytimes.com/2022/01/19/us/politics/afghanistan-drone-strike-video.html]

386 e.g. "Many historians have remarked that colonial empires were anything but systems endowed with an absolute coherence. Improvisation, ad hoc reactions in the face of unforeseen situations, and, very often, informality and weak institutionalization were the rule. But far from attenuating the brutality and atrocities of colonial empires, this porosity and this segmentarity only made them more pernicious. Wherever the thick veil of secrecy worked to shroud acts of misprision, the zones of immunity could be extended beyond all reason by invoking the imperative of security, zones whose impenetrability made them into quasi-natural machines of inertia." Mbembe, Achille. *Necropolitics*. Translated by Steven Corcoran, Duke University Press, 2019, p. 26.

387 Dresser, Sam. "How Russia Is Putting the Ancient Scythians to War in Ukraine." *Aeon*, Mar. 2022. [https://aeon.co/essays/how-russia-is-putting-the-ancient-scythians-to-war-in-ukraine]

388 Žižek, Slavoj. "Welcome to the Desert of the Real!" *Pravda*, vol. 7, no. 5-6, Polity Archive.

389 "Xerodrome, or the desert of the Tellurian Omega, vacillates between two rivers (meso-potamia), two prowling poles of Tellurian insurgency: The oil pipeline and petropolitics on one hand, and endo-bacterial dust and its hydrophilic tide on the other. As soon as they interact with each other and assemble their cults, everything along their line of communication starts to swerve." – Negarestani, Reza. *Cyclonopedia: Complicity with Anonymous Materials*. Re.press, 2008, p. 113.

390 "A nam-shub is a speech with magical force. The closest English equivalent would be 'incantation,' but this has a number of incorrect connotations." – Stephenson, Neal. *Snow Crash*. Penguin, 1993, p. 197.

391 There are a few blips in *A Thousand Plateaus* where the "geological stratum" is discussed, but never with a relationship to empire. Missed opportunity, ngl!

392 Fernand Braudel has a phenomenal understanding of the relationship between empire and resource and topology, on the contingency with which empire temporarily seizes here and relaxes there, on the toss-up of the situation. E.g. "To come back to the example of Sardinia, in the Middle Ages it was drawn into the sphere of Pisa, then of Genoa; their solicitude was accounted for by its gold mines. In the fourteenth and

fifteenth centuries Catalan expansion found a foothold there on its way east. Catalan is still spoken today in Alghero on the west coast, and scholars have detected a curious Hispano-Gothic architecture there. […] Another way of being integrated into Mediterranean life in the sixteenth century was to be constantly harassed by the attacks of the Barbary pirates. The piracy was not always successful: corsairs were sometimes captured, though not very often. More numerous were the Sardinians, fishermen or inhabitants of the coast, who, carried off by the Barbary pirates, every year swelled the ranks of the unfortunate captives or the rich renegades of Algiers. Sardinia then, which has been described as impenetrable, had windows opening outwards from which it is sometimes possible to glimpse, as from an observatory, the general history of the sea." – or this particularly lovely example "To these hilltop worlds, out of touch with the towns, even Rome itself, in all its years of power, can have meant very little, except perhaps through the military camps that the empire established for security reasons in various places on the edges of unconquered mountain lands: hence León, at the foot of the Cantabrian mountains, Djemilah, facing the rebellious Berber Atlas, Timgad and the annex at Lambaesis, where the *IIIa legio augusta* encamped. Neither did Latin as a language take root in the hostile massifs of North Africa, Spain or elsewhere, and the Latin or Italic house type remained a house of the plains. In a few places it may have infiltrated locally, but on the whole the mountains resisted it." – Braudel, Fernand. *The Mediterranean and the Mediterranean World in the Age of Philip II*. Volume 1, translated by Sian Reynolds, Penguin Books, 1993, pp. 151-152, 34.

393 See earlier discussions about 'edge-roughing' and the state – in principle, surface area (temporal distortion) attracts exocapitalism. Empire seems to do this, but at much larger scales and in a much cruder fashion.

394 It's amazing to see such a massive American exporter of physical goods in such financial states, e.g.: Shetti, Utkarsh. "Boeing to Raise up to $24.3 Billion to Shore up Finances, Stave off Downgrade." *Yahoo Finance*, 29 Oct. 2024. [https://finance.yahoo.com/news/boeing-launches-offering-90-million-105151858.html] – Howard, Tom. "Boeing Asks Investors for Another $19bn." *The Times*, 29 Oct. 2024. [https://www.thetimes.co.uk/article/boeing-asks-investors-for-another-19bn-dtpwfjq9r]

395 "Boeing Co Lobbying Profile." *OpenSecrets*, 2024. [https://www.opensecrets.org/federal-lobbying/clients/summary?cycle=ALL&id=D000000100]

396 e.g. Rudge, Sarah. "Boeing's Costly Outsourcing Flight Path." *Supply Chain World Magazine*, 12 March 2024. [https://scw-mag.com/news/boeings-costly-outsourcing-flight-path] – Tang, Christopher S., and

Joshua D. Zimmerman. “Managing New Product Development and Supply Chain Risks: The Boeing 787 Case.” *Supply Chain Forum*, vol. 10, no. 2, 2009. [https://user.eng.umd.edu/~austin/ense622.d/lecture-resources/Boeing787-Outsourcing2009.pdf]

397 Reed, Ted. “Boeing/Airbus Duopoly Is Aging and Impeded. Boom Supersonic Wants a Spot.” *Forbes*, 5 July 2024. [https://www.forbes.com/sites/tedreed/2024/07/05/the-boeingairbus-duopoly-is-aging-and-impeded-boom-supersonic-wants-a-spot/]

398 Lifted! e.g. “Boeing’s Global Services segment offers services to its commercial and defense customers around the globe. The segment provides a wide range of platforms, systems, products, and services. These include supply chain and logistics management, engineering, maintenance and modifications, upgrades and conversions, spare parts, pilot and maintenance training systems and services, data analytics, and digital services.Earnings from operations were $3.33 billion in 2023, up 22.08% YOY. It accounted for 100% of companywide earnings from operations during the year. Revenue rose 8.61% YOY to $19.13 billion, comprising nearly 24.59% of the total for all segments.” – Johnston, Matthew. “How Boeing Makes Money.” *Investopedia*, 2 Apr. 2024. [https://www.investopedia.com/boeing-company-profile-5187140]

399 Losey, Stephen. “Boeing’s Defense Unit Shows Profit, Despite $222M Loss on KC-46, T-7.” *Defense News*, 24 Apr. 2024. [https://www.defensenews.com/industry/2024/04/24/boeings-defense-unit-shows-profit-despite-222m-loss-on-kc-46-t-7/] – “Boeing: Defense, Space and Security Segment Revenue 2021.” *Statista*. [https://www.statista.com/statistics/268999/sales-in-defense-of-boeing/]

400 U.S. Bureau of Economic Analysis. “Federal Government: National Defense Consumption Expenditures and Gross Investment.” *FRED*, Federal Reserve Bank of St. Louis, 1 Jan. 1946. [https://fred.stlouisfed.org/series/FDEFX]

401 United States Government Accountability Office. *Army Modernization: Steps Needed to Ensure Army Futures Command Fully Applies Leading Practices*. 2019.

402 Insinna, Valerie. “F-35 Modernization Program’s Costs, Schedule Keeps Growing: GAO.” *Breaking Defense*, 25 Apr. 2022. [https://breakingdefense.com/2022/04/f-35-modernization-programs-costs-schedule-keeps-growing-gao/] – U.S. Government Accountability Office. “F-35 Joint Strike Fighter: More Actions Needed to Explain Cost Growth and Support Engine Modernization Decision.” *GAO*, 12 Dec. 2023. [https://www.gao.gov/products/gao-24-107177]

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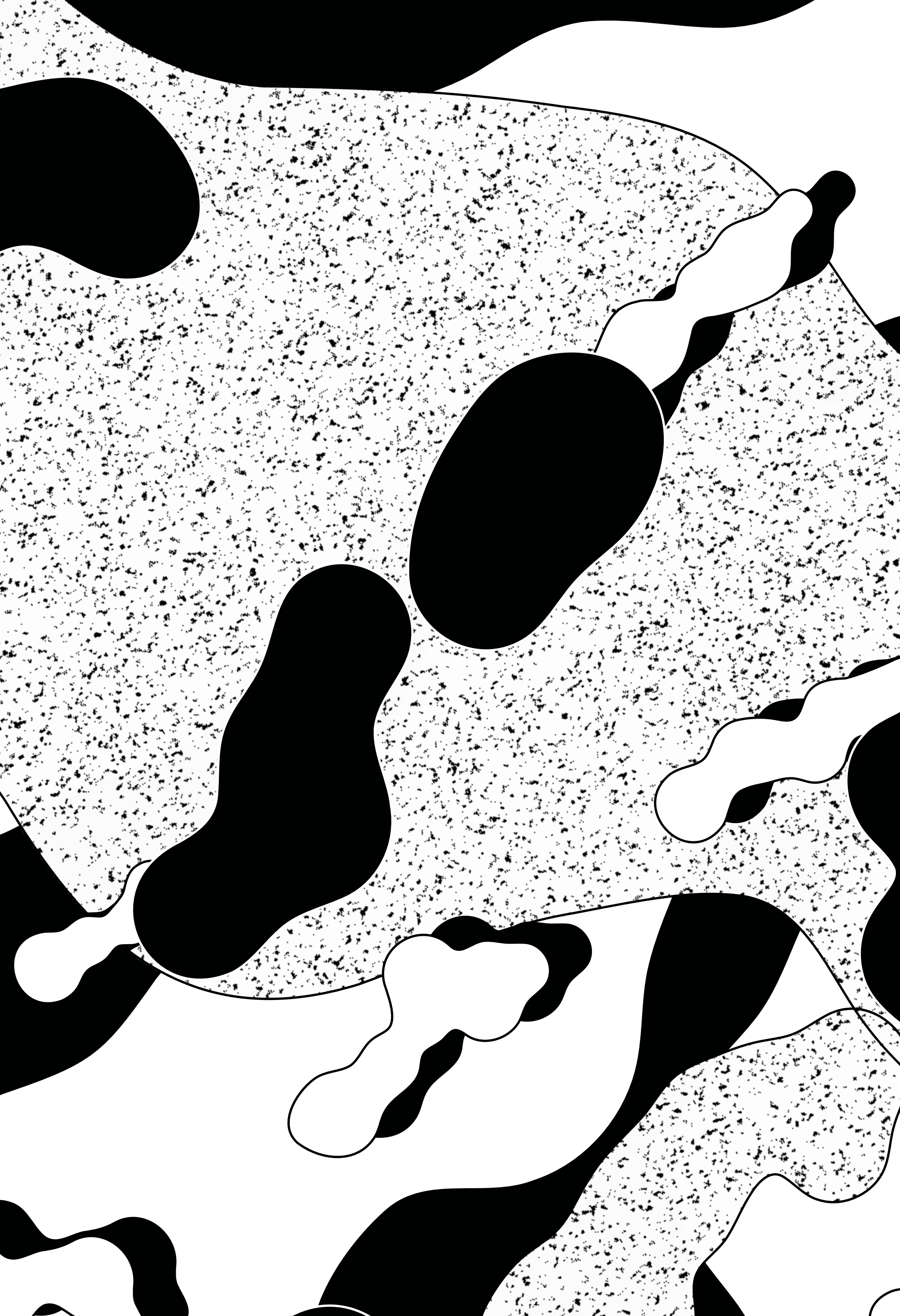


Biographies

Marek Poliks is a researcher in the philosophy of technology, especially with respect to deep learning. He's based in Minneapolis, Minnesota. Marek and his primary research partner Roberto Alonso Trillo (HKBU) have been working to situate deep learning tools as endosymbiotic reproductive infrastructure (inorganic vehicles through which biological, epistemological, and social information is encoded, subject to contingent processes, and transmitted).

Roberto Alonso Trillo is a theorist and artist whose work spans cultural theory, media philosophy, and experimental sound. Based in Hong Kong, his research engages the aesthetic and political dimensions of machine learning, with particular attention to infrastructural critique and performativity. In ongoing collaboration with Marek Poliks, he investigates AI theory and speculative design as part of a broader inquiry into automation and cultural production. His interdisciplinary practice extends into sound art, post-instrumental music, and critical pedagogy.

Alex Quicho is a theorist and research director based in London. Her *Girlstack* project (2023-) gathers extreme and mundane evidence of inhuman 'girl' intelligence and its secret planetary impact, in the theoretical vein of xenofeminism, cyberfeminism, and accelerationism. Her work has been featured in Wired, Vogue, Frieze, and Spike, among others, and she collaborates with arts institutions including Tate Britain, Singapore Art Museum, and Somerset House Studios. She teaches narrative theory at Central Saint Martins.

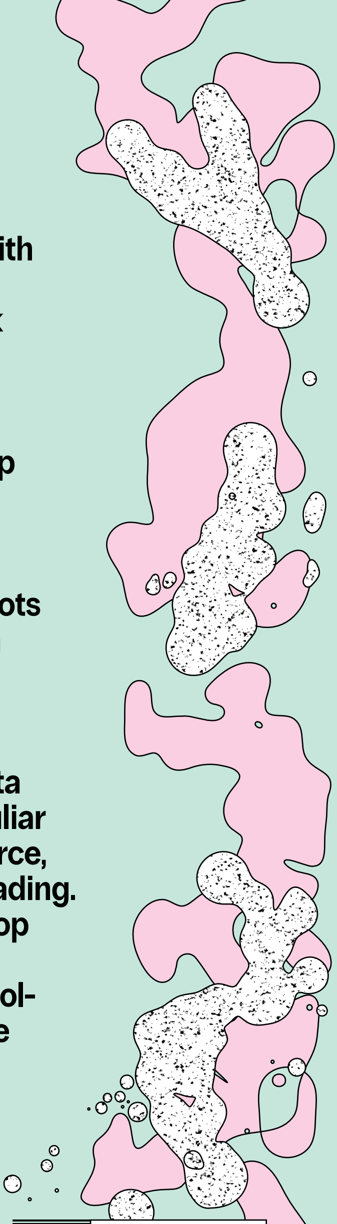
Charles Mudede is a charismatic writer and theorist, a filmmaker, and a humanities lecturer, who maintains a position as senior staff writer for The Seattle Stranger. Born to a preacher in Kwe Kwe, near a Steel Plant in Zimbabwe, it is perhaps unsurprising that his research interests sit on the intersection between Technology and Religion, between Science and Narrative. Mudede has recently completed his first book for Sternberg Press & e-flux, titled *People of the Universe* (2025).

Capitalism does not belong to humans.

Despite an apparent addiction to our sweat and blood, capitalism wants nothing to do with us — it has even spent the last 10,000 years attempting to break away entirely. This book provides a massively-scaled reading of the history of capitalism through the present, a reading which dispels any illusions of our contemporary moment as anything but a blip in a long, autonomous trajectory.

As Charles Mudede suggests in the foreword, we haven't really seen a theory of capitalism like this yet. You can find some roots in a distant reading of Jean Baudrillard, or in the emancipatory projects of Silvia Federici and Frantz Fanon, or in the writings of Suhail Malik and Elena Esposito — but it remains a theory-mutant phrogging inside an AWS data center, a troglodyte who assembled its peculiar understanding of the world through Salesforce, play-to-earn gaming, and high-frequency trading.

Throughout the book, the authors develop three major concepts — fold, lift, and drag — which together offer a kind of emergency toolkit with which a reader might better navigate our ever-enstrangening world.



This first edition includes a foreword by ***Charles Mudede***, an afterword by ***Alex Quicho***, and a series of illustrations by ***Avocado Ibuprofen***.

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